

A1-F18AC-SRM-221

1 May 2001

TECHNICAL MANUAL

ORGANIZATIONAL, INTERMEDIATE, AND DEPOT MAINTENANCE

STRUCTURE REPAIR

FORWARD FUSELAGE

NAVY MODEL F/A-18A AND F/A-18B 161353 AND UP

N00421-98-D-1339

**This manual supersedes A1-F18AC-SRM-221 dated, 1 March 1990
with Change 6 dated, 1 January 1996.**

**This volume is one of four volumes and is incomplete without A1-F18AC-SRM-220,
A1-F18AC-SRM-222 and A1-F18AC-SRM-223.**

This volume contains WP007 00 through WP024 00.

DISTRIBUTION STATEMENT C. Distribution authorized to U.S. Government agencies and their contractors to protect publications required for official use or for administrative or operational purposes only, determined on 1 December 1987. Other requests for this document shall be referred to Commanding Officer, Naval Air Technical Data and Engineering Service Command, Naval Air Station North Island, P.O. Box 357031, Building 90 Distribution, San Diego, CA 92135-7031.

DESTRUCTION NOTICE – For unclassified, limited documents, destroy by any method that will prevent disclosure of contents or reconstruction of the document.

Published by Direction of Commander, Naval Air Systems Command

0801LP1009521

NUMERICAL INDEX OF EFFECTIVE WORK PACKAGES/PAGES

List of Current Changes

Original 0 1 May 2001

Only those work packages assigned to the manual are listed in this index. Insert _____ dated _____. Dispose of superseded and deleted work packages/pages. Superseded and deleted classified work packages/pages shall be destroyed in accordance with applicable regulations. If changed pages are issued to a work package, insert the changed pages in the applicable work package. The portion of text affected in a changed or revised work package is indicated by change bars or the change symbol "R" in the outer margin of each column of text. Changes to illustrations are indicated by pointing hands or change bars, as applicable.

WP Number	Title	WP Number	Title
Title		015 00	Reserved
Page A	Numerical Index of Effective Work Packages/Pages	016 00	Reserved
TPDR-1	List of Technical Publication Deficiency Reports Incorporated	017 00	Forward Fuselage Skins
HMWS	Warnings Applicable to Hazardous Materials	018 00	Forward Fuselage Structure
007 00	Nose Barrel Skins	019 00	Bulkheads, Formers, and Frames; Y211.500 thru Y286.500
008 00	Nose Barrel Structure	020 00	Fuselage Bulkheads, Formers, and Frames; Y294.000 thru Y383.000
009 00	Nose Barrel Bulkheads, Frames and Ballast	021 00	Forward Fuselage Longerons and Stringers
009 01	Removal and Replacement of Ballast for ALR-67 Countermeasures Warning and Control System; Effectivity: F/A-18A 161353 thru 161936	021 01	Strain Gages
010 00	Nose Barrel Longerons and Stringers	022 00	Forward Fuselage Shelves
011 00	Nose Barrel IFR Trough Structure	023 00	Forward Fuselage Web
012 00	Nose Barrel External Doors	023 01	Alignment Device - RE174314235-1, Nose Landing Gear Trunnion, Drag Brace and Linear Actuator Supports
013 00	Door 3	023 02	Locating Fixture - RE274314235-1, Nose Landing Gear Trunnion, Drag Brace Supports
013 01	Maintenance Fixture, RE174313211, Loading Gun Bay Access Door (Door 3)	023 03	Nose Landing Gear Trunnion, Drag Brace Supports, Replacement
013 02	Door 3 Component Replacement	024 00	Forward Fuselage Keels
014 00	Nose Barrell Internal Doors		

Total number of Pages in this manual is 948, consisting of the following:

WP/Page No.	Change No.	WP/Page No.	Change No.	WP/Page No.	Change No.	WP/Page No.	Change No.
Title	0	012 00		018 00		16 Blank	0
A	0	1 - 37	0	1 - 41	0	023 00	
TPDR-1	0	38 Blank	0	42 Blank	0	1 - 8	0
TPDR-2 Blank	0	013 00		019 00		023 01	
HMWS-1 - HMWS-8	0	1 - 55	0	1 - 13	0	1 - 19	0
007 00		56 Blank	0	14 Blank	0	20 Blank	0
1 - 26	0	013 01		020 00		023 02	
008 00		1 - 14	0	1 - 19	0	1 - 205	0
1 - 39	0	013 02		20 Blank	0	206 Blank	0
40 Blank	0	1 - 127	0	021 00		023 03	
009 00		128 Blank	0	1 - 14	0	1 - 158	0
1 - 24	0	014 00		021 01		024 00	
009 01		1 - 15	0	1 - 14	0	1 - 20	0
1 - 3	0	16 Blank	0	022 00			
4 Blank	0	015 00 Reserved	0	1 - 15	0		
010 00		016 00 Reserved	0				
1 - 12	0	017 00					
011 00		1 - 24	0				
1 - 23	0						
24 Blank	0						

LIST OF TECHNICAL PUBLICATION DEFICIENCY REPORTS INCORPORATED

ORGANIZATIONAL, INTERMEDIATE, AND DEPOT MAINTENANCE

STRUCTURE REPAIR

FORWARD FUSELAGE

This WP Supersedes TPDR WP, dated 1 November 1994.

1. The TPDRs listed below have been incorporated in this issue.

IDENTIFICATION NUMBER/ QA SEQUENCE NUMBER	LOCATION
None	

WARNINGS APPLICABLE TO HAZARDOUS MATERIALS

Warnings in this manual alert personnel to hazards associated with the use of hazardous materials. Additional information related to hazardous materials is provided in OPNAVINST 5100.23, Navy Occupational Safety and Health (NAVOSH) program manual, NAVSUPINST 5100.27, Navy Hazardous Material Control Program, and the DOD 6050.5, Hazardous Materials Information System (HMIS) series publications. For each hazardous material used within the Navy, a Material Safety Data Sheet (MSDS) must be provided and available for review by users. Consult your local safety and health staff concerning any questions regarding hazardous materials, MSDS, personal protective equipment requirements, appropriate handling and emergency procedures, and disposal guidance.

Under the heading “HAZARDOUS MATERIALS WARNINGS,” complete warnings, including related icons(s) and numeric identifier, are provided for hazardous materials used in this manual.

In the text of the manual, the caption “WARNING” is not used for hazardous material warnings. Hazards are cited with appropriate icon(s), the nomenclature of the hazardous material, and the numeric identifier that relates to the complete warnings. Users of hazardous materials shall refer to the complete warnings, as necessary.

Biological



Eye Protection



Vapor



Fire



Chemical



Poison



Cryogenic



Radiation



Explosion



EXPLANATION OF HAZARDOUS SYMBOLS



The abstract symbol bug shows a material that may contain bacteria or viruses that present a danger to your life or health.



The symbol of a liquid dripping onto a hand shows that the material will cause burns or irritation to human skin or tissue.



The symbol of a hand in a block of ice shows that the material is extremely cold and can injure human skin or tissue.



The rapidly expanding symbol shows that the material may explode if subjected to high temperature, sources of ignition, or high pressure.



The symbol of a person wearing goggles shows that the material will injure the eyes.



The symbol of a fire shows that the material may ignite and cause burns.



The symbol of a skull and crossbones shows that the material is poisonous or is a danger to life.
















The symbol of three circular wedges shows that the material emits radioactive energy and can injure human tissue or organs.

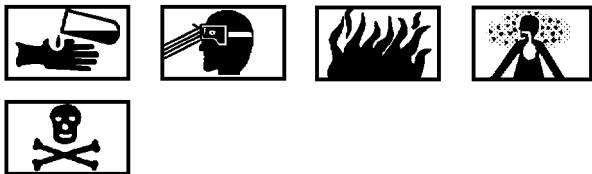

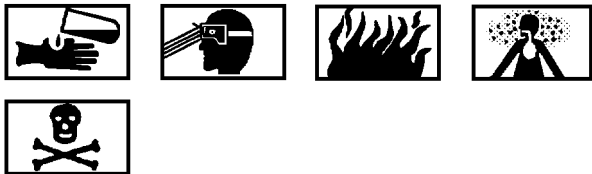



The symbol of a human figure in a cloud shows that material vapors of a material present a danger to life or health.
















HAZARDOUS MATERIALS WARNINGS

<u>Index</u>	<u>Material</u>	<u>Warning</u>
1	Sealing Compound, MIL-S-8802, Class A-1/2	Sealing Compound, MIL-S-8802, Class A-1/2, is toxic. Prolonged breathing of vapors from organic solvents or materials containing organic solvents is dangerous. Rubber gloves shall be used. Wash hands thoroughly with soap and water before eating, drinking, or smoking. Contains chromates; follow approved toxic waste disposal procedures.
	  	
2	Isopropyl Alcohol, TT-I-735	Isopropyl Alcohol, TT-I-735, is flammable - do not use near open flames, near welding areas, or on hot surfaces. Do not smoke when using it and do not use it where others are smoking. Inhalation of vapors can cause drowsiness, dizziness, and headache. Contact of liquid with skin may cause dermatitis and irritation. If any liquid contacts skin or eyes, immediately flush affected area thoroughly with water. Remove solvent-saturated clothing. If vapors cause drowsiness, go to fresh air. When handling large quantities greater than one gallon), work at air-exhausted workbench or covered tank. Store solvent and dispose of liquid-soaked clothes in approved metal safety container. Metal containers of liquid must be grounded to maintain electrical continuity.
	   	
3	Sealing Compound, MIL-S-83430, Class A-1/2	Sealing Compound, MIL-S-83430, Class A-1/2, is a skin and eye irritant. Prolonged overexposure via inhalation may cause liver and/or kidney damage. Protection: Chemical splash proof goggles and solvent resistant gloves. Keep compound off skin and eyes. Insure good personal hygiene prior to eating, drinking, or smoking.
	   	
4	Corrosion Resistant Compound, MIL-C-81706, Class 1A, Form 3	Corrosion Resistant Compound, MIL-C-81706, Class 1A, Form 3, is highly reactive - do not mix with oxidizable materials such as cloth, paper, and wood. When mixing solutions, add acid to water, not water to acid. Contact with powder can cause severe skin and eye irritation and skin ulcers. Inhalation or ingestion can result in nasal and kidney damage. If any liquid or powder contacts skin or eyes, immediately flush affected area thoroughly with water. Immediately change any contaminated clothing. If skin disorders appear, get medical attention. When handling powder at air-exhausted workbench or tank, wear approved gloves and apron. When handling or when mixing it into solution at unexhausted workbench, wear approved respirator, gloves, and apron. Do not eat, smoke, or carry smoking materials in areas where powder is handled. Contains chromates. Follow approved toxic waste disposal procedures.
	 	

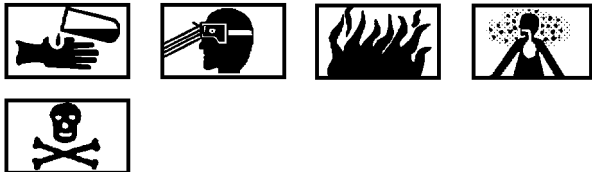

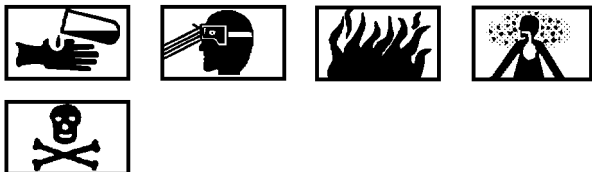
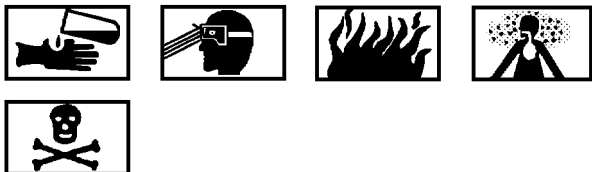
HAZARDOUS MATERIALS WARNINGS (Continued)

<u>Index</u>	<u>Material</u>	<u>Warning</u>
5	Primer Coating, MIL-P-85582, Type 1	Primer Coating MIL-P-85582, Type 1, is toxic and flammable. Avoid prolonged or repeated breathing of vapors. Wash hands after use. Wash contaminated clothing before re-use. Avoid heat, sparks and flames. Store only in ventilated areas. Protection: full face-piece continuous-flow supplied air respirator, neoprene gloves, chemical goggles, faceshield, protective skin compound, and protective clothing required during spraying operations.
		
6	Chemical Conversion Coating, MIL-C-81706, Class 3 (avionics)	Chemical Conversion Coating, MIL-C-81706, Class 3, is highly reactive - do not mix with oxidizable materials such as cloth, paper, and wood. When mixing solutions, add acid to water, not water to acid. Contact with powder can cause severe skin and eye irritation and skin ulcers. Inhalation or ingestion can result in nasal and kidney damage. If any liquid or powder contacts skin or eyes, immediately flush affected area thoroughly with water. Immediately change any contaminated clothing. If skin disorders appear, get medical attention. When handling powder at air-exhausted workbench or tank, wear approved gloves and apron. When handling or when mixing it into solution at unexhausted workbench, wear approved respirator, gloves, and apron. Do not eat, smoke, or carry smoking materials in areas where powder is handled. Contains chromates. Follow approved toxic waste disposal procedures.
		
7	Polyurethane Coating, MIL-C-85285, #17925	Polyurethane Coating, MIL-C-85285, #17925, is toxic and flammable. Avoid contact with skin and eyes. Avoid breathing vapors. Remove and wash contaminated clothing before re-use. Do not take internally. Wash hands before eating, smoking or using washroom. Keep away from heat, sparks and flame. Do not apply to hot surfaces. Keep containers tightly closed. Store in a well-ventilated area. Protection: full face-piece continuous-flow supplied air respirator, neoprene gloves, chemical goggles, faceshield and protective skin compound; protective clothing required during spraying operations.
		
8	Sealing Compound (Faying Sealant), MIL-S-83430, Type B-1/2	Sealing Compound, MIL-S-83430, Type B-1/2, is a skin and eye irritant. Prolonged overexposure via inhalation may cause liver and/or kidney damage. Protection: Chemical splash proof goggles and solvent resistant gloves. Keep compound off skin and eyes. Insure good personal hygiene prior to eating, drinking, or smoking.
		

























HAZARDOUS MATERIALS WARNINGS (Continued)

<u>Index</u>	<u>Material</u>	<u>Warning</u>
9	Sealing Compound, MIL-S-81733, Type 1-1/2	Sealing Compound MIL-S-81733, Type 1-1/2, is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Keep away from open flames or other sources of ignition. Rubber gloves shall be used. Wash hands thoroughly with soap and water before eating, drinking or smoking. Contains chromates; follow approved toxic waste disposal procedures.
	    	
10	Methyl Ethyl Ketone, TT-M-261	Methyl Ethyl Ketone, TT-M-261, is flammable - do not use near open flames, near welding areas, or on hot surfaces. Do not smoke when using it, and do not use it where others are smoking. Contact with liquid or vapor can cause skin irritation, dermatitis and drowsiness. If there is any prolonged skin contact, wash contacted area with soap and water. Remove solvent saturated clothing. If vapors cause drowsiness, go to fresh air. If irritation persists, get medical attention. When handling liquid at air-exhausted workbench, wear approved gloves, goggles and long sleeves. When handling liquid or liquid-soaked cloth in open unexhausted area, wear approved respirator, gloves and goggles. Dispose of liquid soaked rags in approved metal container. Metal containers of solution must be grounded to maintain electrical continuity.
	  	
11	Adhesive, MMM-A-132, Type 1, Class 3	Adhesive, MMM-A-132, Type 1, Class 3, is flammable and a skin and eye irritant. Avoid contact with skin and eyes. Use in a well-ventilated area and avoid inhaling curing vapors. Avoid prolonged storage at elevated temperatures. Avoid contact with strong oxidants. Protection: rubber gloves, chemical goggles and protective skin compound; use dust mask during grinding/cutting cured resin; respirator with organic vapor cartridge required in poorly ventilated areas.
	   	
12	Sealing Compound, MIL-S-8802, Type 2, Class A-1/2	Sealing Compound, MIL-S-8802, Type 2, Class A-1/2, is toxic. Prolonged breathing of vapors from organic solvents or materials containing organic solvents is dangerous. Rubber gloves shall be used. Wash hands thoroughly with soap and water before eating, drinking, or smoking. Contains chromates; follow approved toxic waste disposal procedures.
	  	

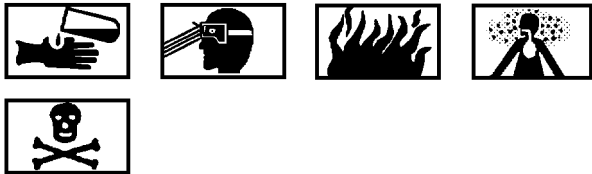



HAZARDOUS MATERIALS WARNINGS (Continued)

<u>Index</u>	<u>Material</u>	<u>Warning</u>
13	Beryllium	Beryllium and its compounds are considered to be human and experimental carcinogens, tumorigens, and neoplastigens. Compounds may enter the body through inhalation of dust and fumes and may act locally on the skin. Even alloys of low beryllium content have shown to be dangerous. Inhalation of the dust can cause sever lung damage with symptoms appearing within months. Exposure may result in fibrosis. Beryllium and its compounds are on the Community Right to Know List. Respirator apparatus must be used when drilling, grinding, sanding or abrading beryllium alloys. Skin/eye protection are required. Avoid repeated/prolonged contact.
		
14	Zinc Chromate Primer Coating, Low Moisture Sensitivity, TT-P-1757, Type I	Zinc Chromate Primer Coating, Low Moisture Sensitivity, TT-P-1757, Type I, is flammable - do not use near open flames, near welding areas, or on hot surfaces. Do not smoke when using it, and do not use it where others are smoking. Contact with liquid or vapor can cause skin or eye irritation, dizziness, and headache. Prolonged inhalation can result in kidney and liver damage. After prolonged skin contact, wash contacted area with soap and water. If vapors cause dizziness, go to fresh air. If irritation persists, get medical attention. When handling small quantities (less than 1 gallon), wear approved gloves. When handling large quantities of liquid (greater than 1 gallon) at unexhausted workbench, wear approved respirator, gloves, goggles, apron, and long sleeves. Do not eat, smoke, or carry smoking materials in areas where liquid is handled. Dispose of liquid-soaked rags in approved metal container. Contains chromates. Follow approved toxic waste disposal procedures.
		
15	Sealing Compound, MIL-S-81733, Type 2-2	Sealing Compound, MIL-S-81733, Type 2-2, is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Keep away from open flames or other sources of ignition. Rubber gloves shall be used. Wash hands thoroughly with soap and water before eating, drinking or smoking. Contains chromates; follow approved toxic waste disposal procedures.
		
16	Sealing Compound, MIL-S-81733, Type 2-1/2	Sealing Compound, MIL-S-81733, Type 2-1/2, is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Keep away from open flames or other sources of ignition. Rubber gloves shall be used. Wash hands thoroughly with soap and water before eating, drinking or smoking. Contains chromates; follow approved toxic waste disposal procedures.
		

HAZARDOUS MATERIALS WARNINGS (Continued)

<u>Index</u>	<u>Material</u>	<u>Warning</u>
17	Sealing Compound, MIL-S-81733, Type 4-12	Sealing Compound, MIL-S-81733, Type 4-12, is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Keep away from open flames or other sources of ignition. Rubber gloves shall be used. Wash hands thoroughly with soap and water before eating, drinking or smoking. Contains chromates; follow approved toxic waste disposal procedures.
	    	
18	Cleaning Compound, MIL-C-38736	Cleaning Compound, MIL-C-38736, irritates skin, nose, throat and respiratory tract. Avoid repeated/prolonged contact. Avoid heat, sparks, flames, and strong oxidizing agents. Keep away from open flames or other sources of ignition. Use only in well-ventilated areas. Protection: Full-face atmosphere supplying respirator, chemical resistant gloves and chemical goggles.
	     	
19	Adhesive, EPON828	Adhesive, EPON 828, is toxic and flammable. Avoid contact with skin and eyes. Use in well-ventilated area and avoid breathing vapors. Wash hands thoroughly after each use. Close container after usage. Store in a cool, dry and well-ventilated area. Avoid contact with strong oxidizing agents. Protection: rubber gloves, chemical goggles and protective skin compound; respirator with organic vapor cartridge required in poorly ventilated areas.
	   	
20	Polamide Resin, VERSAMID 125	Polamide Resin, VERSAMID 125, is toxic. Avoid breathing of vapors. Avoid contact with skin or eyes. Wear gloves and goggles while handling. If eye contact is made, wash immediately with large amount of water. If skin contact is made, wash immediately with soap and water.
	  	
21	Technical Nitrogen, BB-N-411, Type 1, Class 1, Grade A or B	Technical Nitrogen, BB-N-411, Type 1, Class 1, Grade A or B, acts as a natural asphyxiant. Use in well-ventilated spaces.
		
22	Adhesive, EA956	Adhesive, EA956, is toxic and flammable. Avoid contact with skin or eyes. If eye contact is made, wash immediately with soap and water. Use in well-ventilated area and avoid breathing vapors. Wash hands thoroughly after each use. Close container after each use. Store in a cool, dry, and well-ventilated area. Avoid contact with strong oxidizing agents. Protection: rubber gloves, chemical resistant goggles, and protective skin compound; respirator with organic vapor cartridge required in poorly ventilated areas.
	    	

HAZARDOUS MATERIALS WARNINGS (Continued)

<u>Index</u>	<u>Material</u>	<u>Warning</u>
23	Sealing Compound, MIL-S-81733, Type 1-2	Sealing Compound, MIL-S-81733, Type 1-2, is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Keep away from open flames or other sources of ignition. Rubber gloves shall be used. Wash hands thoroughly with soap and water before eating, drinking or smoking. Contains chromates; follow approved toxic waste disposal procedures.
		
24	Sealing Compound, MIL-S-83430, Class B-4	Sealing Compound, MIL-S-83430, Class B-4, is a skin and eye irritant. Prolonged overexposure via inhalation may cause liver and/or kidney damage. Protection: Chemical splash proof goggles and solvent resistant gloves. Keep compound off skin and eyes. Insure good personal hygiene prior to eating, drinking, or smoking.
		
25	Dry Cleaning Solvent, P-D-680, Type II	Dry Cleaning Solvent, P-D-680, Type II, is combustible - do not use near open flames, near welding areas, or on hot surfaces. Prolonged contact of skin with liquid can cause dermatitis. Repeated inhalation of vapor can irritate nose and throat and cause dizziness. If any liquid contacts skin or eyes, immediately flush affected area thoroughly with water. Remove solvent saturated clothing. If vapors cause dizziness, go to fresh air. When handling liquid or when applying it in air-exhausted, partially covered tank, wear approved gloves. When handling liquid or when applying it at unexhausted, uncovered tank or workbench wear approved respirator and goggles. Cleaning solvents shall not be applied by air spray and shall not be kept in open containers.
		
26	Sealing Compound, High Temperature, MIL-S-83430	Sealing Compound, High Temperature, MIL-S-83430, is a skin and eye irritant. Prolonged overexposure via inhalation may cause liver and/or kidney damage. Protection: Chemical splash proof goggles and solvent resistant gloves. Keep compound off skin and eyes. Insure good personal hygiene prior to eating, drinking, or smoking.
		

ORGANIZATIONAL AND DEPOT MAINTENANCE**STRUCTURE REPAIR****NOSE BARREL SKINS**

Reference Material

Aircraft Corrosion Control	A1-F18AC-SRM-500
Form in Place Sealing	WP010 00
Nose Barrel Finish System and Markings	WP018 00
Aircraft Weapons Systems Cleaning and Corrosion Control	NAVAIR 01-1A-509
Structure Repair, General Information	A1-F18AC-SRM-200
Cold Working Fastener Holes	WP004 10
Fasteners	WP004 06
Oversize Fasteners	WP004 07
Introduction	WP002 00
Locating Blind Holes and Trim Lines	WP004 03
Structure Repair, Typical Repair	A1-F18AC-SRM-250
Aluminum Patch Fabrication	WP006 01
Aluminum, Graphite Epoxy, or Titanium Patch Installation and Removal	WP007 00
Aluminum Sheet, Free of Structure and Land Areas	WP031 00
Aluminum and Titanium Sheet, Formed Structure	WP033 00
Aluminum Sheet Edge Repair	WP034 00
Aluminum Sheet Repairs, Across Structure and Lands	WP036 00
Blending	WP038 00
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Fuel System	A1-F18AC-460-300
Inflight Refueling Probe Fairing	WP085 00

Alphabetical Index

Subject	Page No.
Damage Evaluation	2
Negligible Damage	2
Repairable Damage	2
Repairs	2
Permanent Repairs	2
Cracks	2
Dents	4
Edge	4
Holes	3
Scratches, Nicks, Gouges, or Corrosion	2
Replacement	22
IFR Probe Fairing	22

Record of Applicable Technical Directives

None

1. **DAMAGE EVALUATION.** See figures 1 and 2.

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The types of materials used are shown in figure 1. Repair zones are shown on figure 2. Allowable damage limits within repair zones are listed in tables 1 and 2. Repair to aluminum or titanium sheet across structure or land areas, 0.063 inch material or thicker, in zone B2 is depot maintenance. Damage not listed or exceeding the following limits require a depot engineering disposition.

3. **NEGLIGIBLE DAMAGE.** Negligible damage is damage that may be allowed to exist. However, preventive maintenance, for temporary corrosion arrestment, should be done to scratches (NAVAIR 01-1A-509). The types and limits of damage are listed below and in table 1. The figure and index numbers in table 1 coincide with the figure and index numbers in the material index.

a. Scratches are not allowed within one diameter from the edge of any hole.

b. Smooth dents only, effective diameter at least 20 times the depth.

4. **REPAIRABLE DAMAGE.** The types and limits of damage are listed below and in table 2. The figure and index numbers in table 2 coincide with figure and index numbers in the material index, figure 1.

NOTE

The limits in table 2 apply after blending the damage.

a. Scratches.

(1) Any scratches within one diameter of any hole must be blended out. Minimum blend out is one diameter from edge of any hole.

(2) Scratches to be blended out with diameter, or width, at surface at least 20 times the depth.

b. Nicks, gouges, and corrosion to be blended out with diameter, or width, at surface at least 20 times the depth.

c. Cracks. All cracks must be repaired.

d. Holes.

(1) Damage in areas free of structure and lands must have edge of cleanup hole at least eight repair fastener diameters from any land, internal structure or existing row of fasteners.

(2) Damage to lands, overstructure, only one repair per land.

e. Dents exceeding the limits in table 1 must be repaired.

5. REPAIRS.

6. Types of repairs are temporary, one-time flight, permanent, critical area, alternate and typical. Repair type definition are in structure repair terms (A1-F18AC-SRM-200, WP002 00).

7. PERMANENT REPAIRS.

8. **Scratches, Nicks, Gouges, or Corrosion.** Blend scratches, nicks, gouges, or corrosion (A1-F18AC-SRM-250, WP038 00). If after blending, the damage limits of table 2 are exceeded, repair aluminum sheet as below. Refinish blended areas (A1-F18AC-SRM-500, WP018 00).

a. Scratches - make crack or edge repairs.

b. Nicks, gouges, or corrosion - make hole or edge repair.

9. Cracks.

a. In repair zones A1, A2, A3 and B2, repair cracks free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00) as below:

(1) Stop drill ends of crack in repair zone A1 or A2 rout out crack in repair zone A3. Completely cut out crack in smallest diameter circle possible in repair zone B2.

(2) In repair zone A1, A2 or A3, install a lap patch.

(3) In repair zone B2, install a type two flush or lap patch.

(4) Refinish repaired areas (A1-F18AC-SRM-500, WP018 00).

b. In repair zone B3, repair cracks free of structure or land areas in aluminum sheet (0.050 inch thickness or less) as below:

(1) Completely cut out crack in the smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zones A1, A2, A3 or B2, repair cracks across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP0036 00) as below:

(1) Cut out damage.

NOTE

When making a repair in zone B2, to 0.063 inch or thicker material, all fastener holes shall be cold worked (A1-F18AC-SRM-200, WP004 10) or drilled to an interference fit (A1-F18AC-SRM-200, WP004 06) for standard fasteners or (WP004 07) for oversize fastener. Cold working or drilling interference fit holes is depot maintenance.

(2) In repair zones A1, A2, A3, and B2, make repairs as below:

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge or Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

d. In repair zones A1, A2, A3 or B2 repair cracks to aluminum formed structure (A1-F18AC-SRM-250, WP033 00) as below:

(1) Cut out damage.

(2) In repair zones A1, A2, A3 or B2, install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

10. Holes.

a. In repair zones A1, A2, A3 and B2, repair holes free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00) as below:

(1) Cut out damage.

(2) In repair zones A1, A2, and A3, install a type one flush or lap patch. In repair zone B2, install a type two flush or lap patch.

(3) Refinish repaired areas (A1-F18AC-SRM-500, WP018 00).

b. In repair zone B3, repair holes free of structure or land areas in aluminum sheet (0.050 inch thickness or less) as below:

(1) Completely cut out damage in the smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zones A1, A2, A3 or B2, repair holes across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00) as below:

(1) Cut out damage.

NOTE

When making a repair in zone B2, to 0.063 inch or thicker material, all fastener holes shall be cold worked (A1-F18AC-SRM-200, WP004 10) or drilled to an interference fit (A1-F18AC-SRM-200, WP004 06) for standard fasteners or (WP004 07) for oversize fastener. Cold working or drilling interference fit holes is depot maintenance.

(2) In repair zones A1, A2, A3 or B2, make repairs as below:

(a) Damage to Bay Requiring Repair Across Lands; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

d. In repair zones A1, A2, A3, and B2, repair holes to aluminum formed structure (A1-F18AC-SRM-250, WP033 00) as below:

(1) Cut out damage.

(2) In repair zones A1, A2, A3, or B2, install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired areas (A1-F18AC-SRM-500, WP018 00).

11. **Edge.** In repair zones A1, A2, A3 or B2, repair edge damage in aluminum sheet (A1-F18AC-SRM-250, WP034 00) as below:

a. Cut out damage.

b. Select and install repair patch as below:

(1) Corner damage to Lands.

(2) Corner damage to Lands and Bays.

(3) Edge damage to Lands.

(4) Edge damage to Lands and Bays.

(5) Full Width Damage to End.

c. Refinish repaired areas (A1-F18AC-SRM-500, WP018 00).

12. Dents.

a. In repair zones A1, A2, A3 and B2, repair dents free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00) as below:

(1) Cut out damage.

(2) In repair zones A1, A2, and A3, install a type one flush or lap patch. In zone B2, install a type two flush or lap patch.

(3) Refinish repaired areas (A1-F18AC-SRM-500, WP018 00).

b. In repair zone B3, repair dents free of structure or land areas in aluminum sheet (0.050 inch thickness or less) as below:

(1) Completely cut out damage in the smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zones A1, A2, A3, and B2, repair dents across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00) as below:

(1) Cut out damage.

NOTE

When making a repair in zone B2, to 0.063 inch or thicker material, all fastener holes shall be cold worked (A1-F18AC-SRM-200, WP004 10) or drilled to an interference fit (A1-F18AC-SRM-200, WP004 06) for standard fasteners or (WP004 07) for oversize fastener. Cold working or drilling interference fit holes is depot maintenance.

(2) In repair zones A1, A2, A3, and B2, make repairs as below:

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge or Part: install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired areas (A1-F18AC-SRM-500, WP018 00).

d. In repair zones A1, A2, A3, and B2, repair dents to aluminum formed structure (A1-F18AC-SRM-250, WP033 00) as below:

(1) Cut out damage.

(2) In repair zones A1, A2, A3, and B2, install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

Table 1. Negligible Damage Limits







































Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 1 (1)	Skin Zone A3	0.050 0.075 0.090	0.002 0.002 0.002	0.002 0.002 0.002	100% 100% 100%	0.025  	 10% 10%
Fig 1 (2) 	Skin Zone A2 Zone A3 Zone B2 Zone B3 Zone C3	 0.090 0.040 0.050 0.060 0.075 0.090 0.090 0.090 0.040 0.050	 0.002 0.002 0.002 0.002 0.002 0.002 0.0006 0.0006 0.0006 0.0006	 0.002 0.002 0.002 0.002 0.002 0.002 0.0006 0.0006 0.0006 0.0006	 100% 100% 100% 100% 100% 100% 100% 100% 100% 100%	  0.020 0.025 0.030     0.020 0.025	 10%    10% 5%    
Fig 1 (7) 	Skin Zone A2 Zone A3 Zone B2 Zone B3 Zone C3	 0.075 0.090 0.040 0.050 0.075 0.090 0.090 0.040 0.050 0.075 0.090 0.040 0.050	 0.002 0.002  0.002 0.002 0.002 0.0006 0.004  0.0006 0.0006 0.0006 0.0006	 0.002 0.002 0.002 0.002 0.002 0.002 0.0006 0.0006 0.0006 0.0006 0.0006 0.0006 0.0006	 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100%	   0.020 0.025     0.020 0.025 0.037   	 5%    10% 10%       

Table 2. Repairable Damage Limits After Blending
















Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Corrosion		
				Depth	Area	Depth	Area	
Fig 1 (1)	Skin Zone A3	0.050	0.010	0.010	10%	0.010	10%	
		0.075	0.015	0.015	10%	0.015	10%	
		0.090	0.018	0.018	10%	0.018	10%	
Fig 1 (2) 	Skin							
	Zone A2 Zone A3	0.090	0.018	0.018	10%	0.018	10%	
		0.040	0.008	0.008	10%	0.008	10%	
		0.050	0.010	0.010	10%	0.010	10%	
		0.060	0.010	0.010	10%	0.010	10%	
		0.075	0.015	0.015	10%	0.015	10%	
	Zone B2 Zone B3	0.090	0.018	0.018	10%	0.018	10%	
		0.090	0.018	0.018	10%	0.018	10%	
		0.040	0.008	0.008	15%	0.008	15%	
	Zone C3	0.090	0.018	0.018	10%	0.018	10%	
		0.050	0.010	0.010	15%	0.010	15%	
Fig 1 (7) 	Skin							
	Zone A2 Zone A3	0.075	0.015	0.015	15%	0.015	15%	
		0.090	0.018	0.018	15%	0.018	15%	
		0.040	0.008	0.008	15%	0.008	15%	
		0.050	0.010	0.010	15%	0.010	15%	
		0.075	0.015	0.015	15%	0.015	15%	
	Zone B2 Zone B3	0.090	0.018	0.018	15%	0.018	15%	
		0.090	0.018	0.018	15%	0.018	15%	
		0.040	0.008	0.008	15%	0.008	15%	
	Zone C3	0.050	0.010	0.010	15%	0.010	15%	
		0.075	0.015	0.015	15%	0.015	15%	
		0.090	0.018	0.018	15%	0.018	15%	
		0.040	0.008	0.008	15%	0.008	15%	
0.050		0.010	0.010	15%	0.010	15%		
Fig 1 (8) 	Skin							
	Zone A2	0.075	0.015	0.015	15%	0.015	15%	
		0.090	0.018	0.018	15%	0.018	15%	
		Zone A3	0.040	0.018	0.008	15%	0.008	15%
			0.050	0.010	0.010	15%	0.010	15%
	0.075		0.015	0.015	15%	0.015	15%	
	0.090		0.018	0.018	15%	0.018	15%	
	Zone B2 Zone B3		0.090	0.018	0.018	15%	0.018	15%
		0.040	0.008	0.008	15%	0.008	15%	
		0.050	0.010	0.010	15%	0.010	15%	
	Zone C3	0.075	0.015	0.015	15%	0.015	15%	
0.090		0.018	0.018	15%	0.018	15%		

Table 2. Repairable Damage Limits After Blending (Continued)

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Corrosion	
				Depth	Area	Depth	Area
Fig 1 (10) 	Diffuser Zone D2	0.090	0.020	0.020	75%	0.020	75%
		0.071	0.010	0.010	75%	0.010	75%
		0.040	0.08	0.008	75%	0.008	75%
		0.125	0.010	0.010	75%	0.010	75%
		0.187	0.020	0.020	75%	0.020	75%
		0.087	0.010	0.010	75%	0.010	75%
		0.190	0.010	0.010	75%	0.010	75%
Fig 1 (11)	Fairing Zone A1	0.040	0.008	0.008		0.008	
		0.080	0.020	0.020		0.012	

NOTES

-  0.25 square inch areas permitted at 1.5 inch center-to-center minimum spacing.
-  0.10 square inch areas permitted at 1.5 inch center-to-center minimum spacing.
-  2.0 square inch areas permitted at 2.0 inch center-to-center minimum spacing.
-  0.50 square inch areas permitted at 3.0 inch center-to-center minimum spacing.
-  161353 THRU 161528.
-  161353 THRU 162477.
-  For 74A730202-1007 assembly.

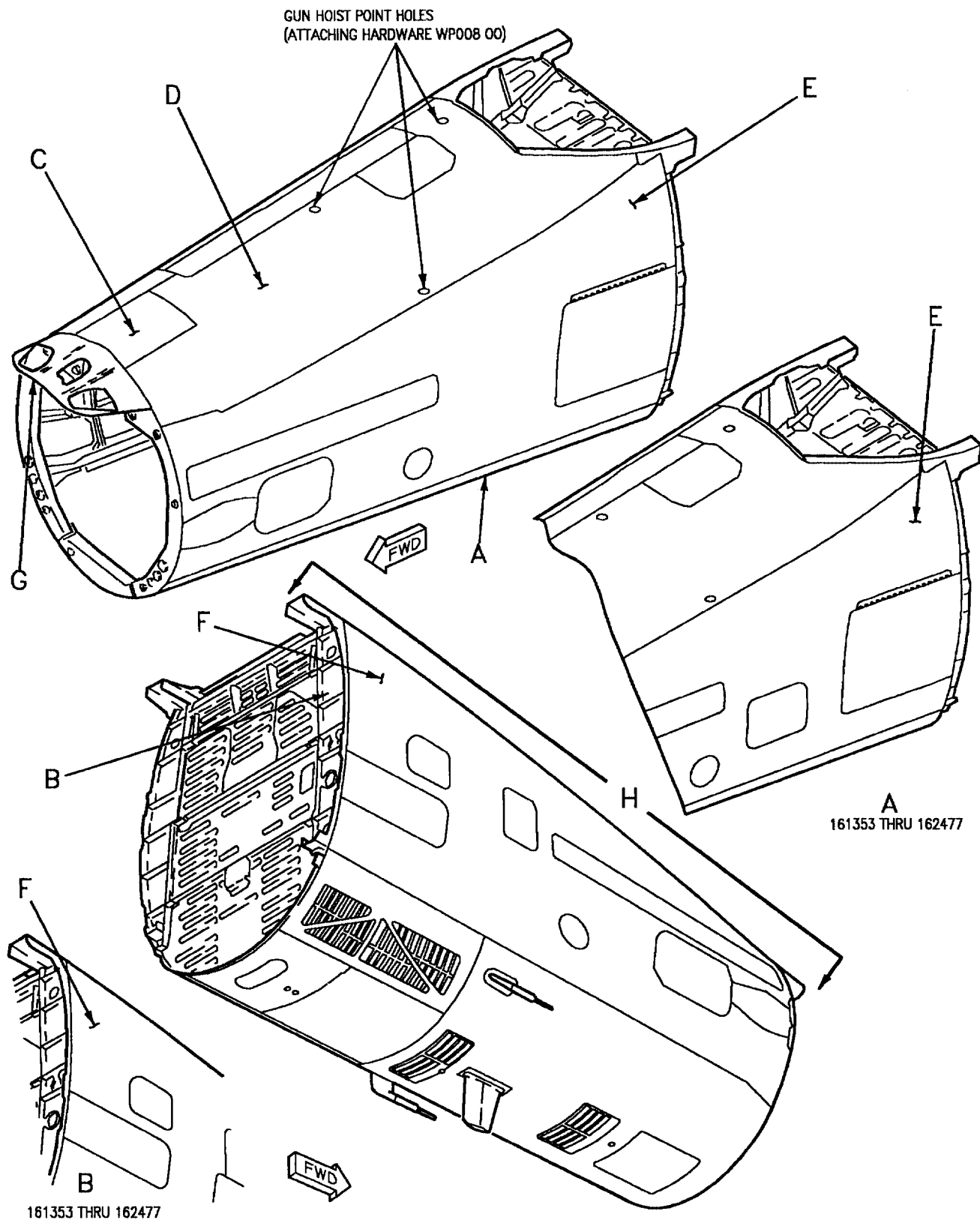


Figure 1. Material Index (Sheet 1)

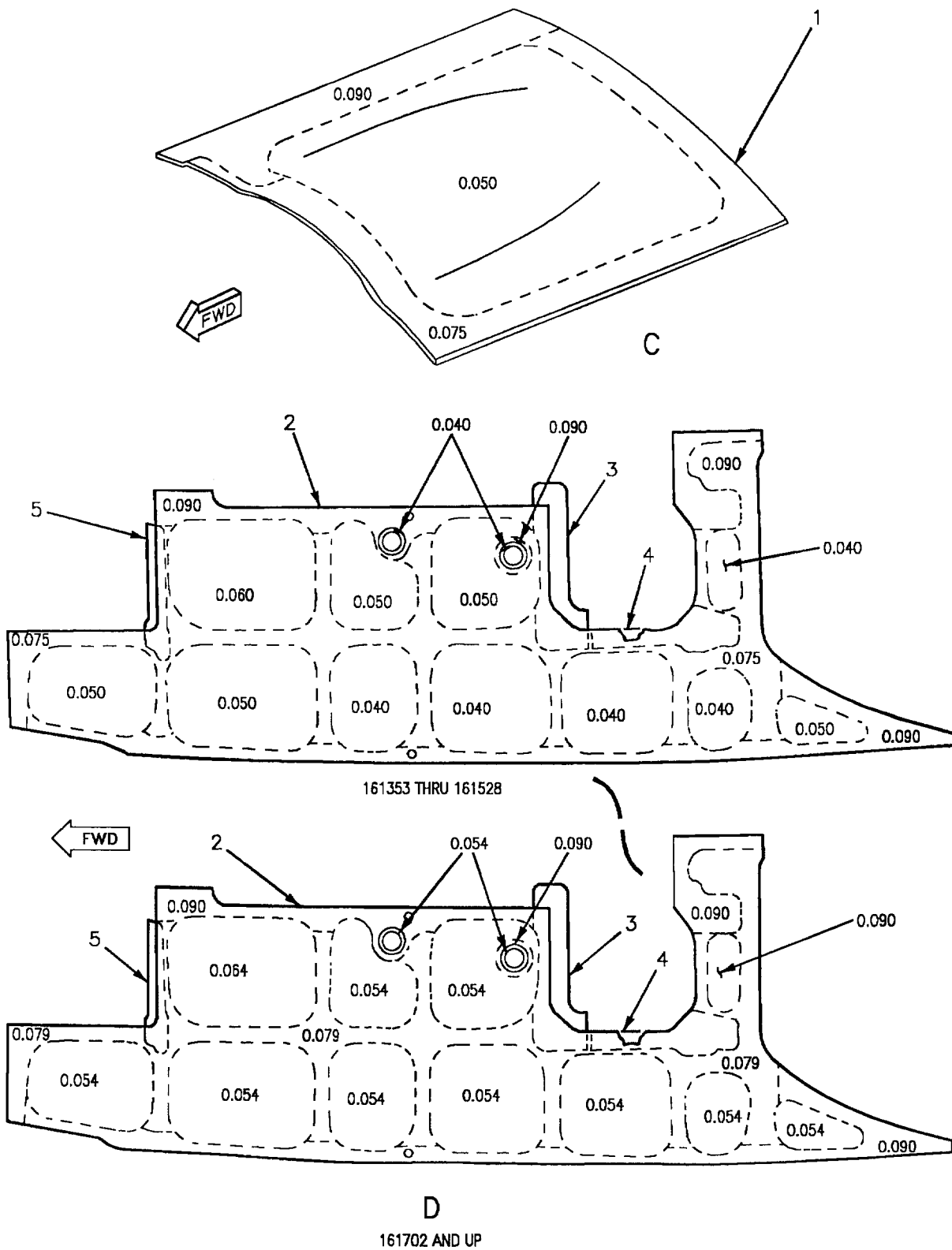


Figure 1. Material Index (Sheet 2)

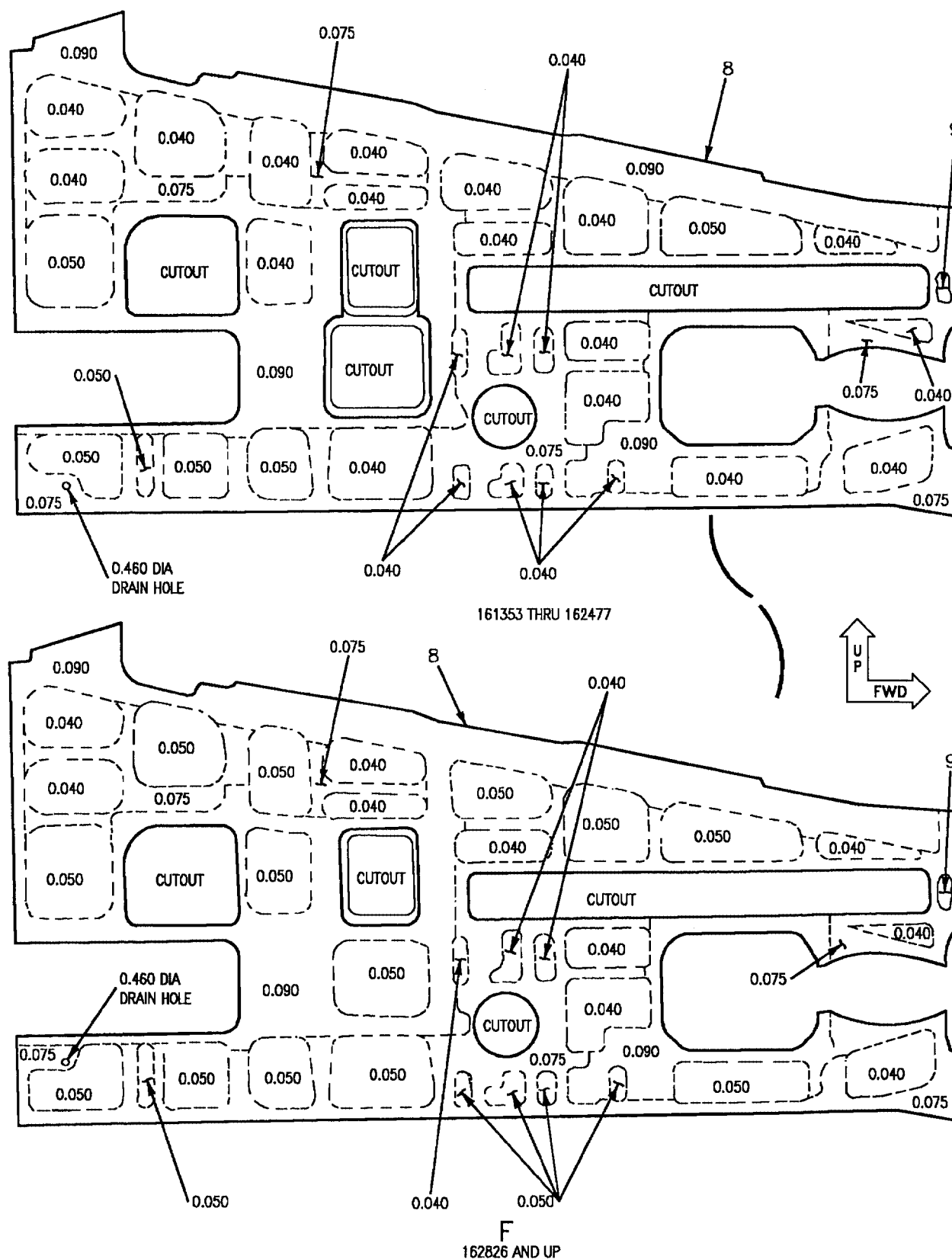


Figure 1. Material Index (Sheet 4)

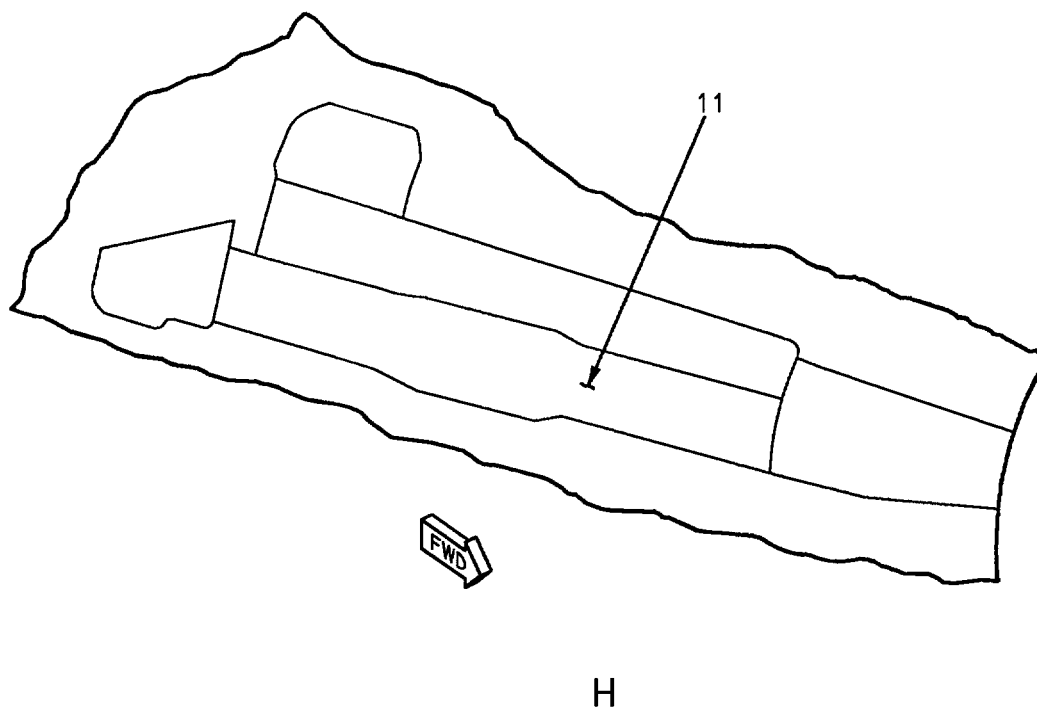
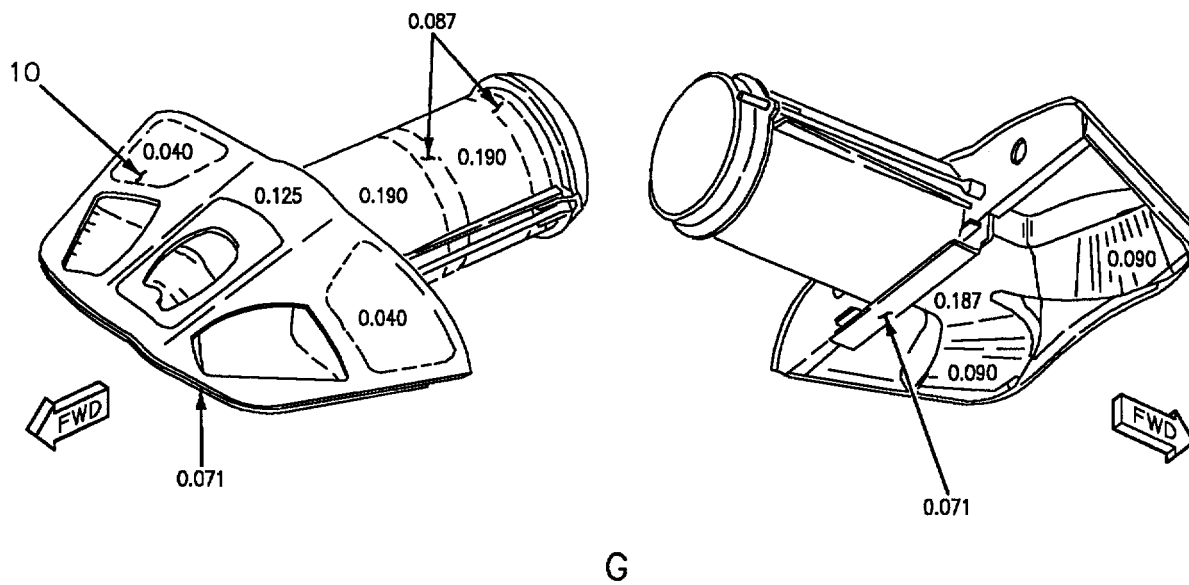


Figure 1. Material Index (Sheet 5)

























Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Skin 74A313032-2001	0.090 Sheet	7075-T76 Alclad
2	 	Skin 74A313013-2001 74A313013-2029	0.090 Sheet	7075-T76 Alclad
3		Doubler 74A313013-2025	0.125 Sheet	7075-T76 Alclad
4		Doubler 74A313013-2011	0.063 Sheet	7075-T6 Alclad
5		Doubler 74A313013-2021	0.063 Sheet	7075-T6 Alclad
6	 	Doubler 74A313010-2021 74A313010-2043	0.125 Sheet	7075-T76 Alclad
7	     	Skin 74A313010-2027 74A313010-9011 74A313010-2035 74A313010-2037 74A313010-2039 74A313010-2041	0.090 Sheet	7075-T76 Alclad
8	       	Skin 74A313011-9071 74A313011-2067 74A313011-9073 74A313011-2069 74A313011-2071 74A313011-9077 74A313011-2075 74A313011-2077	0.090 Sheet	7075-T76 Alclad
9	  	Doubler 74A313011-2043 74A313011-9075 74A313011-2079	0.125 Sheet	7075-T76 Alclad
10	 	Diffuser Assembly 74A730202-1007 74A730202-1009	Welded Assembly Machining	321 Cres 347 Cres
11		Fairing 74A661247-2045	 Sheet	2024-T72 Alclad

Figure 1. Material Index (Sheet 6)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
LEGEND				
1			Land is 0.080 thick and bay is 0.040 thick.	
2			161353 THRU 161528.	
3			161702 AND UP.	
4			161353 THRU 162477.	
5			161702 THRU 161715.	
6			161716 THRU 161736.	
7			161737 THRU 161965, 161968, 161971, 161973, 161976, 161979, 161981, 161984, 161986.	
8			161966, 161967, 161969, 161970, 161974, 161975, 161977, 161978, 161980, 161982, 161983, 161985, 161987 THRU 162477.	
9			162826 AND UP.	
10			161353 THRU 162410, 162413, 162414, 162420, 162423, 162424, 1624456.	
11			162411, 162412, 162415 THRU 162419, 162421, 162422, 162425 THRU 162455, 162457 AND UP.	
12			161353 THRU 161359.	
13			161360 THRU 161528.	
14			161966, 161967, 161969, 161970, 161972, 161974, 161975, 161977, 161978, 161980, 161982, 161983, 161985, 161987 THRU 162444, 162446.	
15			162445, 162447 THRU 162477.	
16			161353 THRU 161944, 161949, 161954, 161957, 161961, 161964, 161968, 161971, 161973, 161975 THRU 162477.	
17			161945 THRU 161948, 161950 THRU 161953, 161955, 161956, 161958, THRU 161960, 161962, 161963, 161965 THRU 161967, 161969, 161970, 161972, 161974.	

Figure 1. Material Index (Sheet 7)

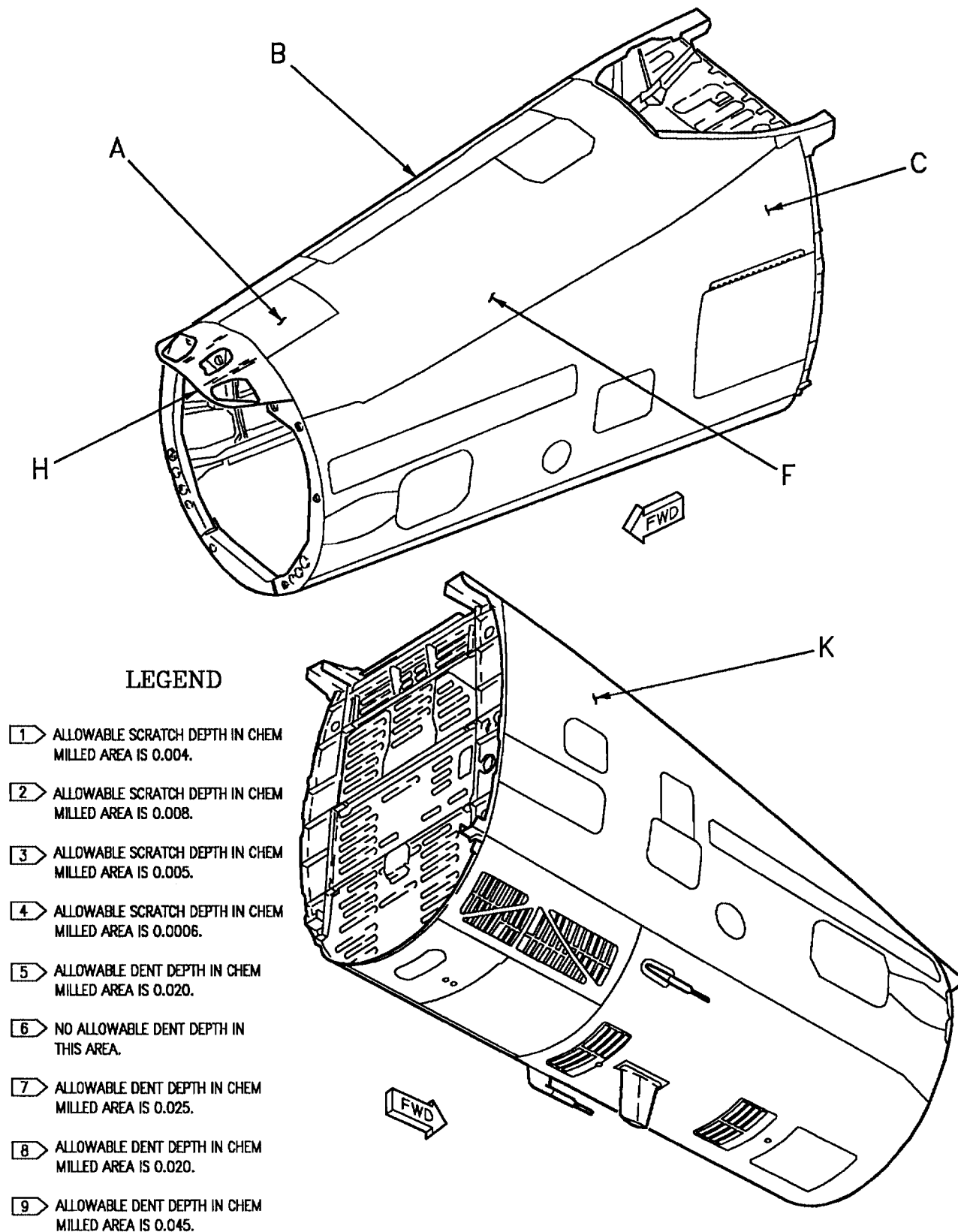


Figure 2. Repair Zones (Sheet 1)

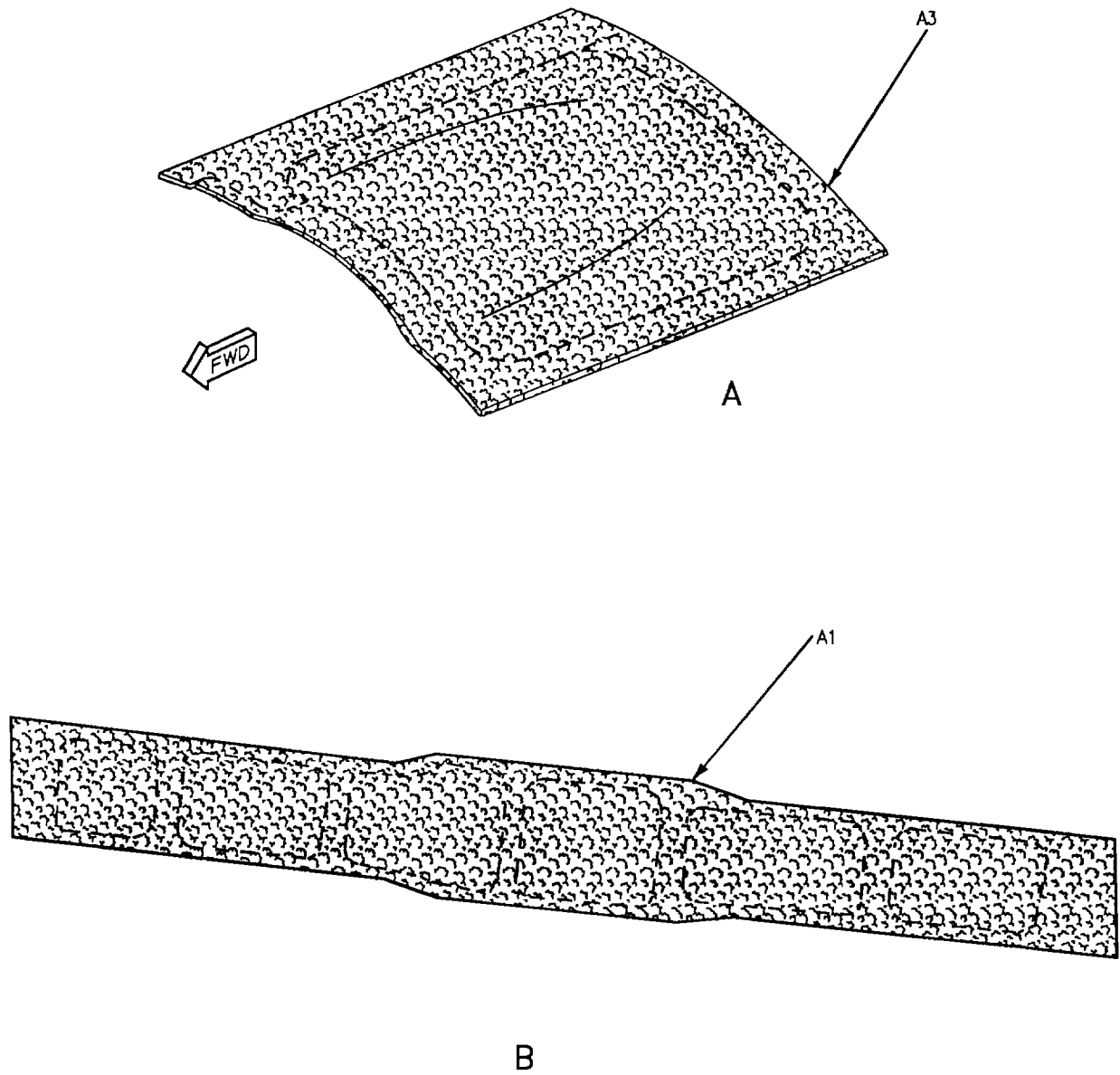


Figure 2. Repair Zones (Sheet 2)

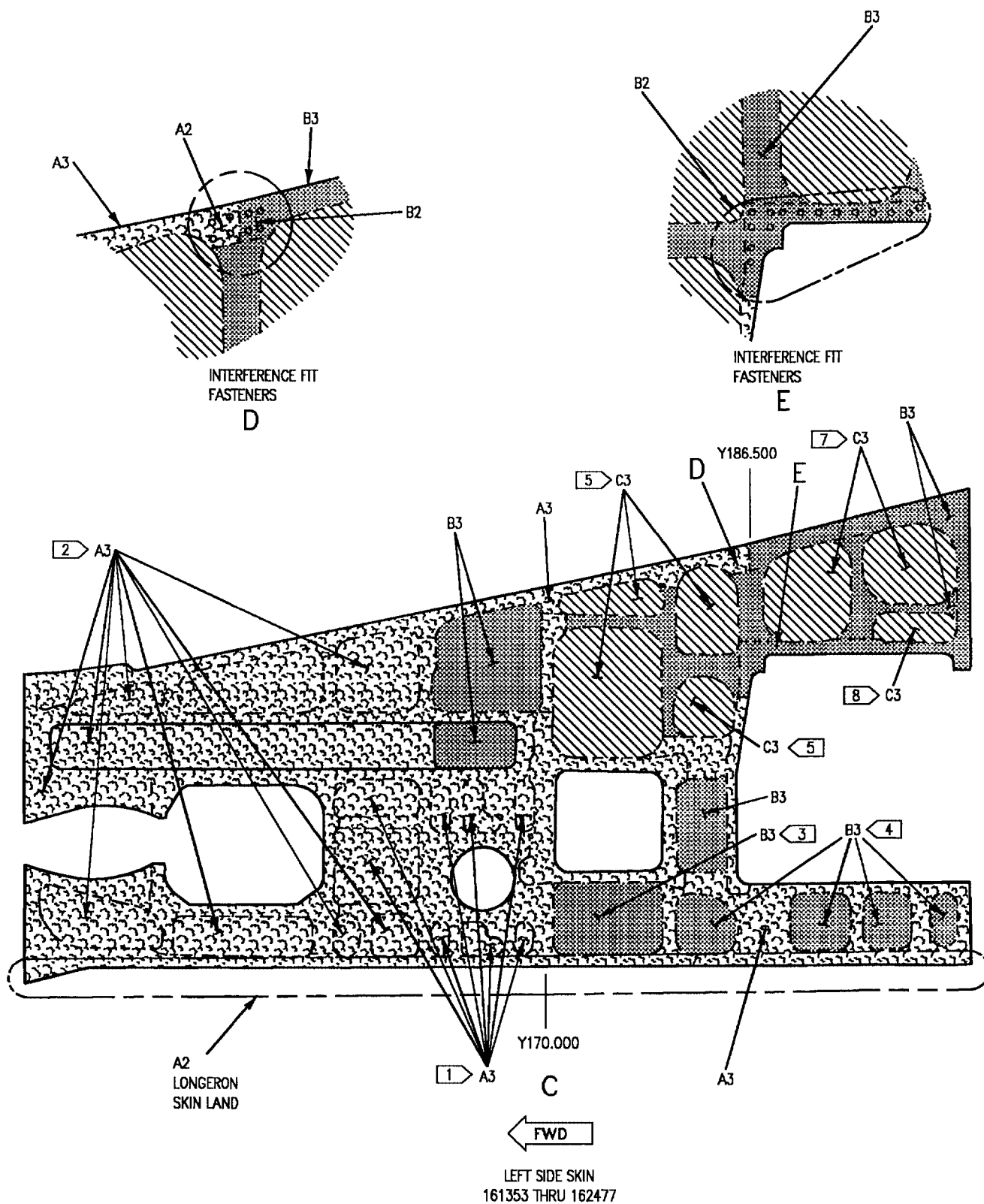
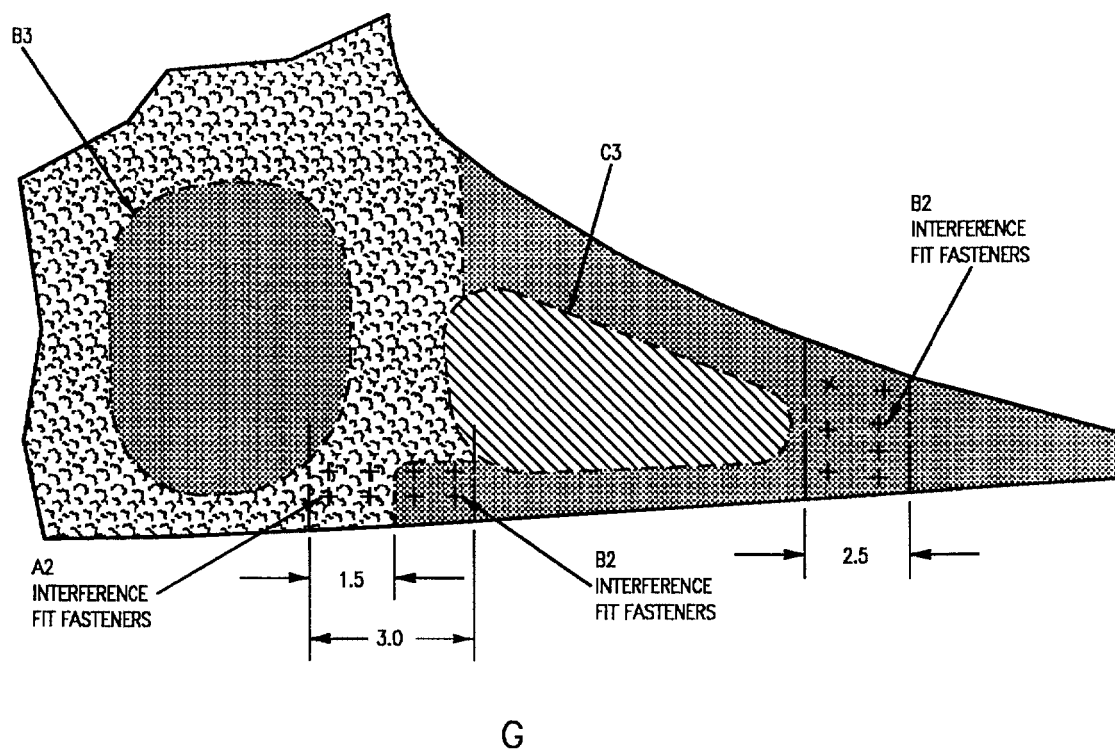
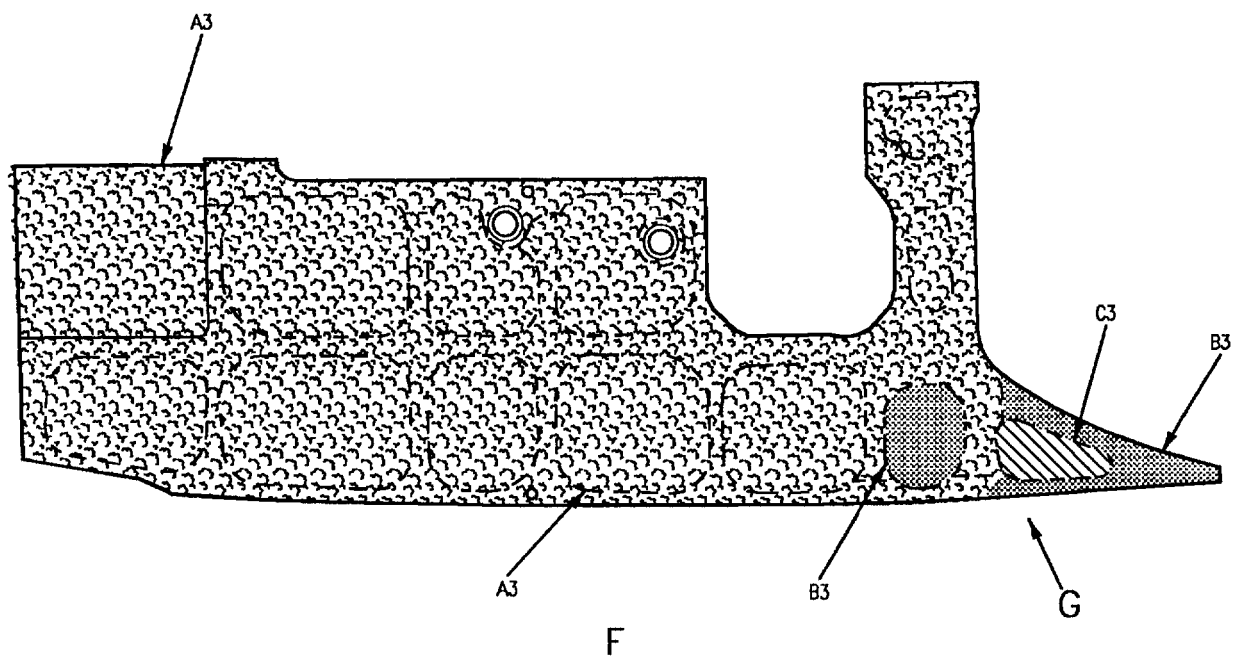


Figure 2. Repair Zones (Sheet 3)



161353 THRU 161528

Figure 2. Repair Zones (Sheet 4)

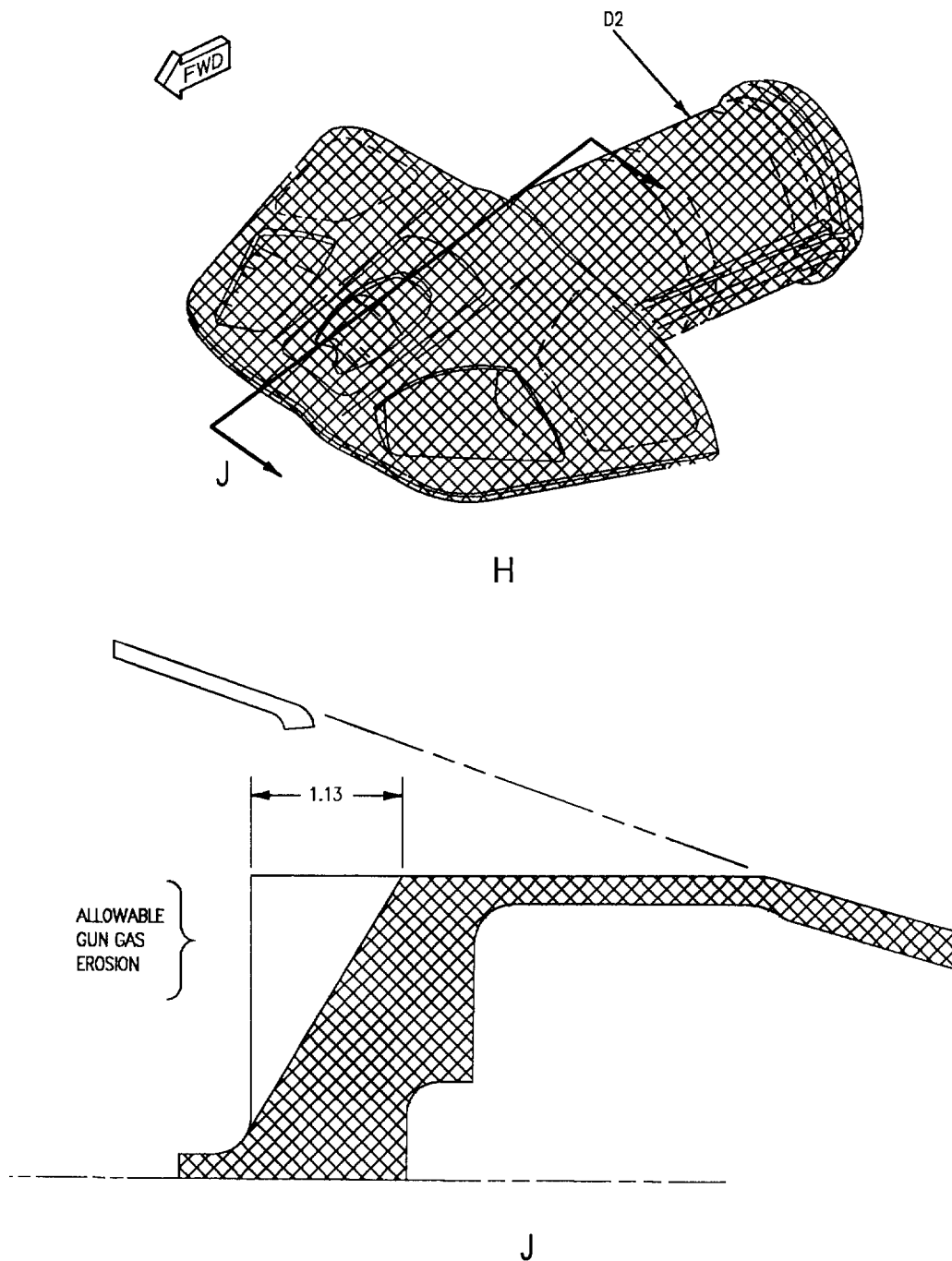
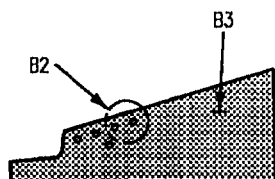
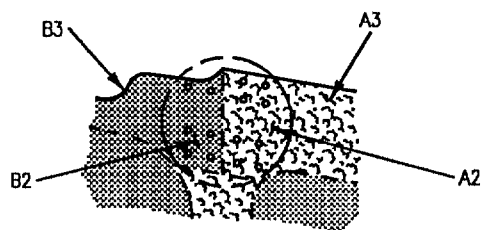


Figure 2. Repair Zones (Sheet 5)



INTERFERENCE
FIT FASTENERS

L



INTERFERENCE
FIT FASTENERS

M

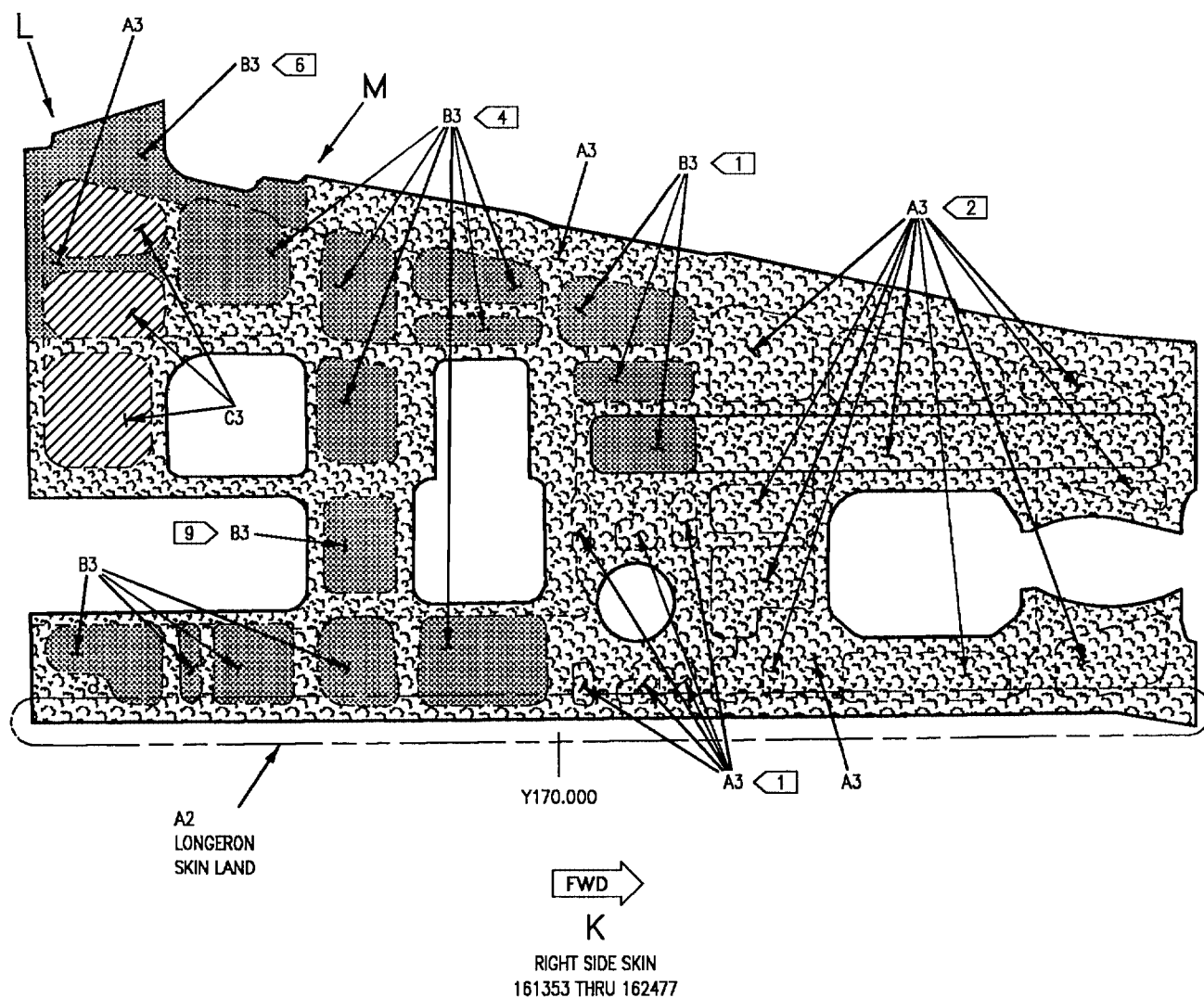


Figure 2. Repair Zones (Sheet 6)

13. REPLACEMENT.

14. IFR PROBE FAIRING. Fairing is replaceable and requires drilling and trimming. Fastener attaching parts are shown on figure 3. For fasteners (A1-F18AC-460-300, WP085 00).

Support Equipment Required

None

Materials Required**Specification or
Part Number****Nomenclature**

74A661247-2037

Shim (5)

74A661247-2039

Shim (2)

MIL-S-8802

Sealing Compound

CLASS A-1/2

a. Removal.

(1) Apply external hydraulic and electrical power (A1-F18AC-LMM-000).

(2) On cockpit FUEL system control panel, set PROBE control switch to EXTEND. See figure 3.

(3) Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

(4) Install probe ground safety lock (A1-F18AC-PCM-000).

(5) Remove screws, fairing, and shims.

(6) Remove form-in-place seal from fairing sill.

b. Replacement.

(1) Remove probe ground safety lock (A1-F18AC-PCM-000).

(2) Apply external hydraulic and electrical power (A1-F18AC-LMM-000).

(3) On cockpit FUEL system control panel, set PROBE control switch to RETRACT. See figure 3.

(4) Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

(5) Locate new fairing in place. Locate and drill 21 holes (A1-F18AC-SRM-200, WP004 03).

(6) Install fairing on probe with two screws and inspect for gaps as shown on figure 3.

(7) Remove two screws.

(8) Trim fairing (A1-F18AC-SRM-200, WP004 03) and inflight refueling probe door, if required, until gaps around fairing are within tolerance as shown on figure 3.

(9) Trim 0.12 inch radius on forward corners of fairing and chamfer 0.50 x 0.090 inch on the aft end, as shown on figure 3.

(10) Install fairing and adjust mismatch by adjusting thickness of shims until a gap of 0.001 to 0.006 inch exists between the sill and fairing. Measure at inboard and outboard end of each bolt row except for the aft most row. The sill is cut below the normal sill level at this point, so measure gap at the aft end of the fairing, this will total 14 measurements after fairing has been tightened.

(11) Preload fairing to sill by removing 0.012 inch (four 0.003 inch laminations) from shims.

(12) Apply external hydraulic and electrical power (A1-F18AC-LMM-000).

(13) On cockpit FUEL system control panel, set PROBE control switch to EXTEND.

(14) Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

(15) Install probe ground safety lock (A1-F18AC-PCM-000).



Sealing Compound, MIL-S-8802, Class A-1/2

1

(16) Apply sealing compound to both sides of shims.

(17) Install fairing, shims, and screws.

(18) Clean and prepare structure mating sill and door for sealing.

(19) Apply form-in-place seal (A1-F18AC-SRM-500, WP010 00).

(20) Clean door of soft seal.

(21) Remove probe ground safety lock
(A1-F18AC-PCM-000).

(22) Turn on external hydraulic and electrical
power (A1-F18AC-LMM-000).

(23) On cockpit FUEL system control panel, set
PROBE control switch to RETRACT, then to EX-
TEND. Fairing must operate smoothly without binding.

(24) On cockpit FUEL system control panel, set
PROBE control switch to RETRACT.

(25) Remove external hydraulic and electrical
power (A1-F18AC-LMM-000).

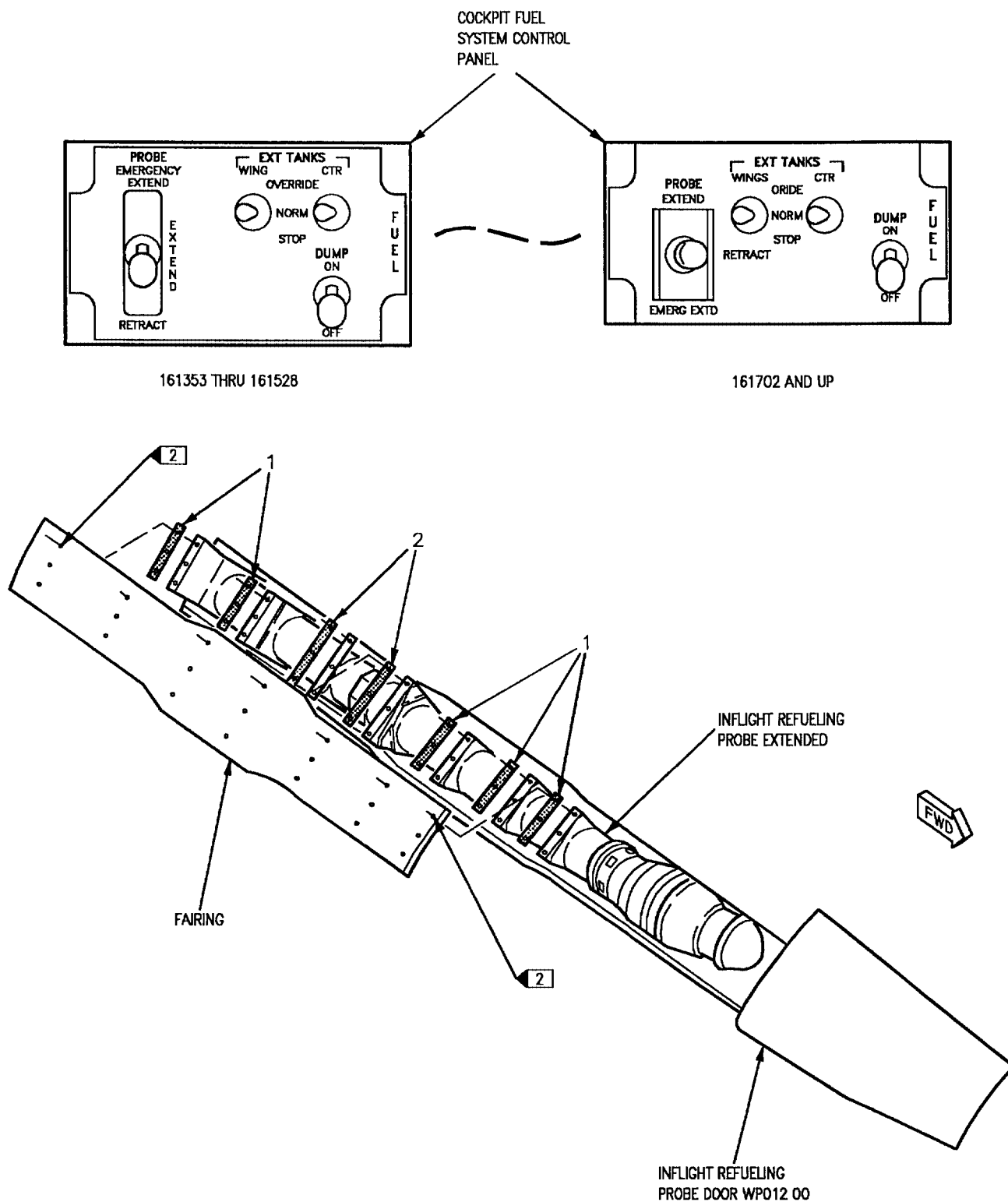


Figure 3. Replacement of Fairing Assembly (Sheet 1)

0.100 TO 0.170
(0.043 MAX. FROM DOOR 105,
0.128 MAX. FROM FAIRING)

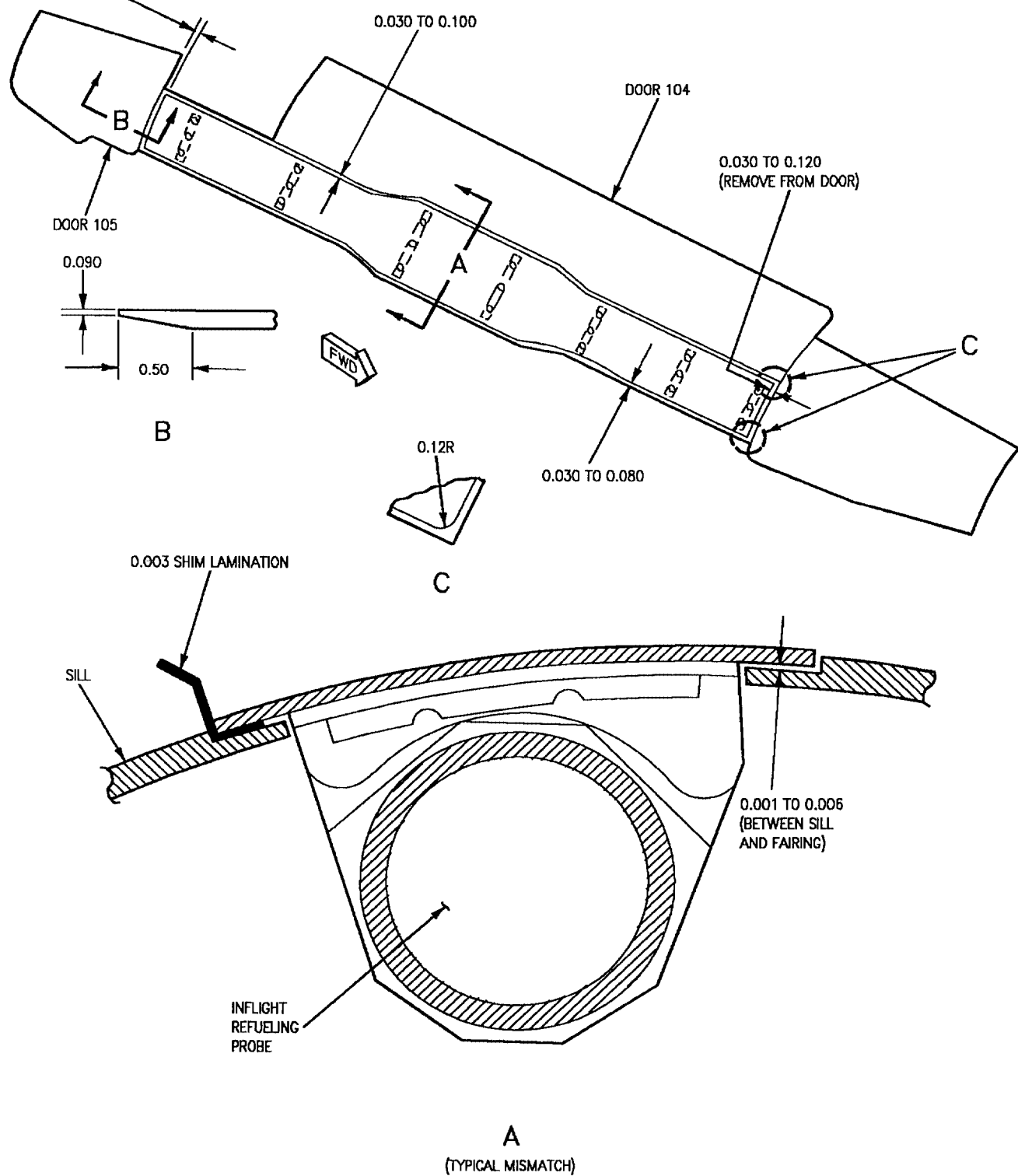


Figure 3. Replacement of Fairing Assembly (Sheet 2)








Idx No.	Eft		Nomenclature	Part Number
1			Shim	74A661247-2037
2			Shim	74A661247-2039
LEGEND				
 Hole diameter is 0.191 +0.006 -0.000.				
 Install screw for inspection.				
 161353 THRU 161965.				

Figure 3. Replacement of Fairing Assembly (Sheet 2)

ORGANIZATIONAL MAINTENANCE**STRUCTURE REPAIR****NOSE BARREL STRUCTURE**

Reference Material

Aircraft Corrosion Control	A1-F18AC-SRM-500
Chemical Treatment	WP008 00
Corrosion Inspection and Removal	WP005 00
Form In Place Sealing	WP010 00
Nose Barrel Finish Systems and Markings	WP018 00
Plane Captain Manual	A1-F18AC-PCM-000
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Gun System	A1-F18AC-750-300
Gun Bay Scavenge Door	WP005 00
20MM Gun System	WP003 00
20MM Gun Blast Diffuser Assembly	WP007 00
Fuel System	A1-F18AC-460-300
Infliight Refueling Probe and Door Drive Mechanism	WP077 00
Structure Repair, General Information	A1-F18AC-SRM-200
Gang Channel and Plate Nut Identification and Repair	WP004 05
Adhesive, Cement, and Sealant; Preparation and Application	WP011 00
Radar System	A1-F18AC-742-300
Extension and Stowage of Radar Set AN/APG-65 and Panel Screw Assembly Repair Radar System	WP003 00

Alphabetical Index

Subject	Page No.
Damage Evaluation	2
Negligible Damage	2
Repairable Damage	2
Repairs	2
Sill Repair (Door 5L/R and 8)	2
Replacement	2
Gun Gas Purge Door	5
Installing 74A313011-2013 EMI Seals	7
Installing 74A313036-2019 EMI Seal	8
Installing 74A313096-2015 EMI Seal	7
Gun Guide Rail Receptacle Replacement	2
Gun Hoist Point Receptacle Replacement	2
Radar Set, 74A313074, Spacer Replacement	3
Replacement of Gang Channel for Boresight Reference Frame	3
Replacement of Plate Nuts Securing Gun Blast Diffuser	3
Replacement of Plate Nuts for Securing Radar Set	3

Record of Applicable Technical Directives

None

1. DAMAGE EVALUATION. See figure 1.

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The types of material used are shown on figure 1. The data shown can be used to analyze the damage.

3. **NEGLIGIBLE DAMAGE.** Damage requires depot engineering disposition.

4. **REPAIRABLE DAMAGE.** Damage requires depot engineering disposition.

5. REPAIRS.

6. **SILL REPAIR (DOOR 5L/R AND 8).** See figure 2. This repair is applicable on 161353 THRU 161737.

Support Equipment Required

None

Materials Required

None



Blend out only enough material to remove the defect.

a. Blend out nicks and scratches in door sill latch contact area by routing and finish hand sanding. Damage exceeding the limits shown in figure requires an engineering disposition.

b. Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. Repair form-in-place seals (A1-F18AC-SRM-500, WP010 00).

7. REPLACEMENT.

8. **GUN HOIST POINT RECEPTACLE REPLACEMENT.** See figure 3. Access to receptacles is through door 3.

Support Equipment Required

None

Materials Required

None

a. Open radome (A1-F18AC-LMM-010).

b. Extend radar set (A1-F18AC-742-300, WP003 00).

c. Open door 3 (A1-F18AC-LMM-010).

d. Remove gun assembly (A1-F18AC-750-300, WP003 00).

e. Replace damaged receptacles.

f. Replace gun assembly (A1-F18AC-750-300, WP003 00).

g. Close door 3 (A1-F18AC-LMM-010).

h. Stow radar set (A1-F18AC-742-300, WP003 00).

i. Close radome (A1-F18AC-LMM-010).

9. **GUN GUIDE RAIL RECEPTACLE REPLACEMENT.** See figure 4.

Support Equipment Required

None

Materials Required

None

a. Open door 3 (A1-F18AC-LMM-010).

b. Drill out rivets holding receptacle to former.

c. Apply finish system as required (A1-F18AC-SRM-500, WP018 00).

d. Position new receptacle on former.

e. Wet install fasteners. Fastener sealing (A1-F18AC-SRM-200, WP011 00).

f. Close door 3 (A1-F18AC-LMM-010).

10. **REPLACEMENT OF PLATE NUTS FOR SECURING RADAR SET.** See figure 5. Open radome (A1-F18AC-LMM-010). Extend radar set (A1-F18AC-742-300, WP003 00). Open door 3 (A1-F18AC-LMM-010). For plate nut on the top right side, access is thru the IFR probe door. Open IFR probe door (A1-F18A-460-300, WP077 00). For installation of plate nuts (A1-F18AC-SRM-200, WP004 05).

11. **RADAR SET, 74A313074, SPACER REPLACEMENT.** See figure 6.

Support Equipment Required

None

Materials Required

None

- a. Make sure electrical power is off (A1-F18AC-LMM-000).
- b. Open radome (A1-F18AC-LMM-010).
- c. Extend radar set (A1-F18AC-742-300, WP003 00).
- d. Open door 3 (A1-F18AC-LMM-010).
- e. Remove fasteners securing 74A313074 spacer to bulkhead.
- f. Remove fasteners securing 74A313079 bracket to 74A313074 spacer.
- g. Attach 74A313079 bracket to new 74A313074 spacer.
- h. Attach 74A313074 spacer assembly to bulkhead.
- i. Refinish repair area (A1-F18AC-SRM-500, WP018 00).
- j. Close door 3 (A1-F18AC-LMM-010).
- k. Stow radar set (A1-F18AC-742-300, WP003 00).
- l. Close radome (A1-F18AC-LMM-010).

12. **REPLACEMENT OF GANG CHANNEL FOR BORESIGHT REFERENCE FRAME.** See figure 7.

Support Equipment Required

None

Materials Required

None

- a. Open radome (A1-F18AC-LMM-010).
- b. Extend radar set (A1-F18AC-742-300, WP003 00).
- c. Open door 3 (A1-F18AC-LMM-010).
- d. Drill out rivets holding gang channel to former.
- e. Install new gang channel using CSR904B3 rivets (A1-F18AC-SRM-200, WP004 05).
- f. Close door 3 (A1-F18AC-LMM-010).
- g. Stow radar set (A1-F18AC-742-300, WP003 00).
- h. Close radome (A1-F18AC-LMM-010).

13. **REPLACEMENT OF PLATE NUTS SECURING GUN BLAST DIFFUSER.** See figure 8.

Support Equipment Required

None

Materials Required

Specification or Part Number

Nomenclature

74A313015-2171	Shim (as required)
74A313030-2081	Shim (as required)
F50405-6	Plate Nut (as required)
BRFS4AD	Rivet (2)
CSR904B-4	Rivet (2)
NAS1673-08L2	Jo-Bolt (as required)
NAS2605V-5-3	Pin (1)
NAS1080AG5	Collar (as required)
NAS2605V-5-8	Pin (1)
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-I-735	Isopropyl Alcohol
MIL-S-83430, CLASS A-1/2	Sealing Compound

- a. Open radome (A1-F18AC-LMM-010).
- b. Extend radar set (A1-F18AC-742-300, WP003 00).
- c. Open door 3 (A1-F18AC-LMM-010).
- d. Remove gun assembly (A1-F18AC-750-300, WP003 00).
- e. Remove gun blast diffuser (A1-F18AC-750-300, WP007 00).

NOTE

Access for collar securing lower flange on 74A313015 bracket assembly to 74A313114 former is through IFR probe trough. Extend IFR probe per steps below if fastener requires removal.

- f. Extend IFR probe:

(1) Apply external hydraulic and electrical power (A1-F18AC-LMM-000).

(2) On FUEL system control panel, set PROBE control switch to EXTEND. See figure 8.

(3) Remove hydraulic and electrical power (A1-F18AC-LMM-000).



To prevent death or injury, probe ground safety lock must be installed when working in probe trough.

(4) Install probe ground safety lock (A1-F18AC-PCM-000).

g. Remove fasteners securing 74A313030 and/or 74A313015 bracket assemblies to 74A313114 former. See figure 8 for bracket and fastener location.

NOTE

Retain original shim or note shim thickness for use in the installation procedures.

- h. Remove bracket assembly and shim.

- i. Remove rivets securing damaged plate nut to bracket assembly.



Isopropyl Alcohol, TT-I-735

2

- j. Clean bracket and mating surface of former of any residual sealing compound using clean cheesecloth moistened with isopropyl alcohol.

- k. Apply finish system as required to bracket and former (A1-F18AC-SRM-500, WP018 00).

NOTE

Step m is for installing 74A313030 bracket assembly, left side. Step n is for installing 74A313015 bracket assembly, right side.

- l. Install 74A313030 bracket assembly, left side:

(1) Position new F50405-6 plate nut on bracket.



Sealing Compound, MIL-S-83430, Class A-1/2

3

- (2) Wet install BRFS4AD rivets, two places, securing plate nut to bracket. For sealing preparation and application (A1-F18AC-SRM-200, WP011 00).

(3) Position bracket assembly on 74A313114 former.

(4) Install temporary fasteners to hold bracket assembly in position.

(5) Temporarily install gun blast diffuser bolt to insure proper alignment of plate nut and bracket assembly (A1-F18AC-750-300, WP007 00).

(6) With mating parts properly located, measure gap and install laminate shim with a thickness equal to the gap within one lamination prior to shimming. The maximum acceptable gap is the stock shim laminate thickness.

(7) Remove gun blast diffuser bolt and temporary fasteners.

(8) Fay seal mating surfaces of bracket assembly, shim and 74A313114 former. For sealing preparation and application (A1-F18AC-SRM-200, WP011 00).

(9) Wet install NAS1673-08L2 jo-bolt on upper flange and NAS2605V-5-3 pin with NAS1080AG05 collar on lower flange, see figure 8.

m. Install 74A313015 bracket assembly, right side:

(1) Position new F50405-6 plate nut on bracket.

(2) Wet install CSR904B-4 rivets, two places, securing plate nut to bracket. For sealing preparation and application (A1-F18AC-SRM-200, WP011 00).

(3) Position bracket assembly on 74A313114 former.

(4) Install temporary fasteners to hold bracket assembly in position.

(5) Temporarily install gun blast diffuser bolt to insure proper alignment of plate nut (A1-F18AC-750-300, WP007 00).

(6) With mating parts properly located, measure gap and install laminate shim with a thickness equal to the gap within one lamination prior to shimming. The maximum acceptable gap is the stock shim laminate thickness.

(7) Remove gun blast diffuser bolt and temporary fasteners.

(8) Fay seal mating surfaces of bracket assembly, shim, and 74A313114 former. For sealing preparation and application (A1-F18AC-SRM-200, WP011 00).

NOTE

Access for pin and collar securing lower flange on bracket assembly to former is through IFR probe trough.

(9) Wet install NAS1673-08L-2 jo-bolts on upper flange and NAS2605V5-8 pin with NAS1080AG05 collar on lower flange.

n. Touch up finish system as required (A1-F18AC-SRM-500, WP018 00).

o. Install gun blast diffuser (A1-F18AC-750-300, WP007 00).

p. Install gun assembly (A1-F18AC-750-300, WP003 00).

q. Close door 3 (A1-F18AC-LMM-010).

r. Retract radar set (A1-F18AC-742-300, WP003 00).

s. Close radome (A1-F18AC-LMM-010).

t. Retract IFR probe if extended:

(1) Remove probe ground safety lock (A1-F18AC-PCM-000).

(2) Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

(3) On FUEL system control panel, set probe control switch to RETRACT.

(4) Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

14. **GUN GAS PURGE DOOR.** See figure 9. EMI seals damaged beyond acceptable limits shall be replaced. Undamaged EMI strips may be removed and reinstalled on aircraft not displaying corrosion on mating surface around gun purge door area.

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
MIL-C-81706, CLASS 1A, FORM 3	Corrosion Resistant Compound
MIL-C-81706, CLASS 3 (AVIONICS)	Chemical Conversion Coating
MIL-C-85285, #17925	Coating, Polyurethane
MIL-P-85582, TYPE 1	Primer, Epoxy
MIL-S-83430, TYPE B 1/2	Sealant, Faying
BM1FS4AD()	Rivets (10)
MS20470AD5	Rivets (8)

a. Remove 20mm gun system, (A1-F18AC-750-300, WP003 00).

b. Remove door, 74A732015, (A1-F18AC-750-300, WP005 00).



Be careful not to enlarge holes when drilling out rivets.

c. Remove rivets attaching 74A313011-2011 support, 74A313011-2073 spacer and 74A313011-2013 EMI seal on each side of gun purge door area.

d. Remove support, spacer and EMI seal.

e. Remove rivets attaching 74A313036-2019 support and 74A313036-2017 EMI seal and 74A313036-2011 angle on bottom side of gun purge door area.

f. Remove support, angle and EMI seal.

g. Remove rivets attaching 74A313096-2017 support, 74A313096-2015 EMI seal and 74A313096-2009 plate on top side of gun purge door area.

h. Remove support, plate and EMI seal.

i. Inspect mating surface on structure around gun purge door area for corrosion and other damage.

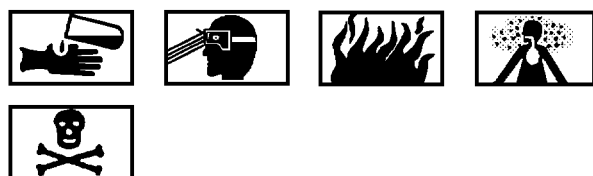
j. If corrosion is present, remove corrosion, (A1-F18AC-SRM-500, WP005 00).



Corrosion Resistant Compound, MIL-C-81706, Class 1A, Form 3

4

k. Apply corrosion resistant compound to bare metal in the gun purge door area, (A1-F18AC-SRM-500, WP008 00).



Primer Coating, MIL-P-85582, Type 1

5

NOTE

No primer where the EMI seal mates with supports and spacer.

l. Apply MIL-P-85582, TYPE 1 primer, to gun purge door area structure, supports and spacer.

m. If reinstalling existing EMI seals and supports, go to step s.

n. Cut new EMI seals to size from 11M993-1 stock, detail A.

o. Position new EMI seals and supports, secure in place.

p. Punch holes in EMI seal for fasteners.

q. Remove EMI seals and supports.

r. Fabricate new 74A313011-2011 supports, detail C.

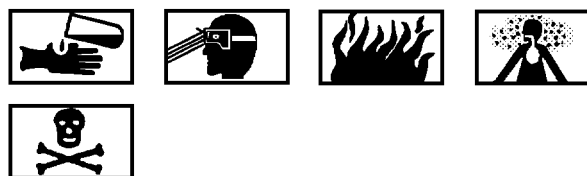


Chemical Conversion Coating, MIL-C-81706, Class 3 (AVIONICS)

6

s. Apply MIL-C-81706 CLASS 3, (AVIONICS) Chemical conversion coating to inboard and outboard surface of 74A313011-2011 support, (A1-F18AC-SRM-500, WP008 00).

t. Apply primer to outboard surface of 74A313011-2011 support, (A1-F18AC-SRM-500, WP018 00).



Polyurethane Coating, MIL-C-85285, #17925

7

u. Apply MIL-C-85285, #17925 polyurethane coating to outboard surface of 74A313011-2011 support, (A1-F18AC-SRM-500, WP018 00).

v. Fabricate new 74A313011-2073 spacers, detail B.

w. Apply MIL-C-81706, CLASS 1A FORM 3, corrosion resistant compound to both sides of 74A313011-2073 spacer, (A1-F18AC-SRM-500, WP008 00).

x. Apply primer to both sides of 74A313011-2073 spacer, (A1-F18AC-SRM-500, WP018 00).

y. Apply corrosion resistant compound to inboard surface of 74A313011 doubler, (A1-F18AC-SRM-500, WP008 00).

z. Apply primer to inboard surface of 74A313011 doubler, (A1-F18AC-SRM-500, WP018 00).

15. Installing 74A313011-2013 EMI seals.



Sealing Compound (Faying Sealant),
MIL-S-83430, Type B 1/2

8

NOTE

No faying sealant on the EMI seal bulb side of the support.

a. Apply faying sealant to outboard sides of 74A313011-2073 spacer, inboard side of doubler and mating structure.

b. While sealant is still wet install EMI seal, support and spacer.

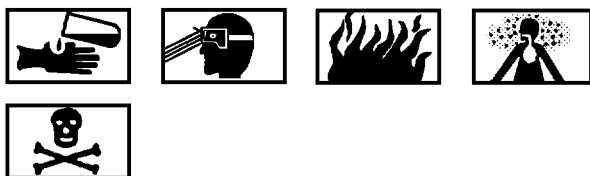
NOTE

Do not wet install rivets attaching supports, spacers, EMI seals, angle, doubler and longeron. Electrical bonding is achieved through the rivets.

c. Install BM1FS4AD() rivets.

d. Fillet seal to fill cavity between EMI seal and spacer.

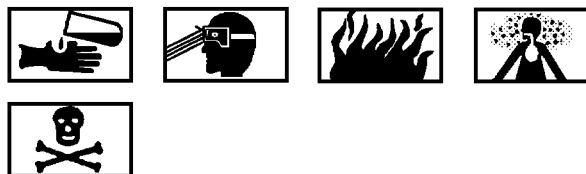
e. Install form in place seal on structure, (A1-F18AC-SRM-500, WP010 00).



Primer Coating, MIL-P-85582, Type 1

5

f. Apply MIL-P-85582, TYPE 1 primer to BM1FS4AD() rivets, (A1-F18AC-SRM-500, WP018 00).



Polyurethane Coating, MIL-C-85285, #17925

7

g. Apply MIL-C-85285, #17925 polyurethane coating to BM1FS4AD() rivets, (A1-F18AC-SRM-500, WP018 00).

16. Installing 74A313096-2015 EMI seal.

a. If reinstalling existing EMI seal, support and plate, go to step d.

b. Cut new EMI seal to size from 11M993-1 stock, detail A.

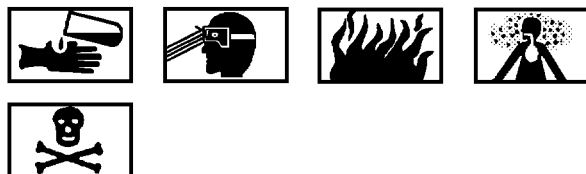
c. Fabricate new 74A313096-2017 support, detail E.



Chemical Conversion Coating, MIL-C-81706,
Class 3 (Avionics)

6

d. Apply MIL-C-81706, CLASS 3 (avionics) chemical conversion coating to upper and lower surface of 74A313096-2017 support, (A1-F18AC-SRM-500, WP008 00).



Primer Coating, MIL-P-85582, Type 1

5

e. Apply MIL-P-85582, TYPE 1 primer to lower surface of 74A313096-2017 support, (A1-F18AC-SRM-500, WP018 00).

f. Fabricate new 74A313096-2009 plate, detail D.

g. Apply chemical conversion coating to upper and lower surface of 74A313096-2023 plate, (A1-F18AC-SRM-500, WP008 00).

h. Apply primer to upper and lower surface of 74A313096-2023 plate, (A1-F18AC-SRM-500, WP018 00).



Sealing Compound (Faying Sealant), MIL-S-83430, TYPE B 1/2

8

NOTE

No faying sealant on the EMI seal bulb side of the support or plate.

i. Apply faying sealant to upper side of 74A313096-2023 plate and lower surface of 74A313096 intercostal.

j. While sealant is still wet install EMI seal, support and plate to 74A313096 intercostal.

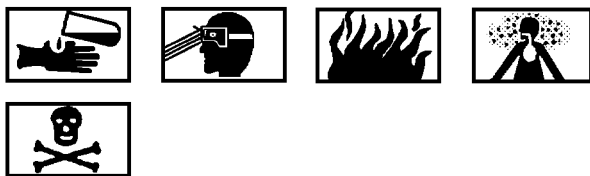
NOTE

Do not wet install rivets attaching support, plate, EMI seal and intercostal. Electrical bonding is achieved through the rivets.

k. Install MS20470AD5 rivets.

l. Fillet seal to fill cavity between EMI seal and support.

m. Apply primer to MS20470AD5 rivets, (A1-F18AC-SRM-500, WP018 00).



Polyurethane Coating, MIL-C-85285, #17925

7

n. Apply MIL-C-85285, #17925 polyurethane coating to MS20470 rivets, (A1-F18AC-SRM-500, WP018 00).

17. Installing 74A313036-2019 EMI seal.

a. If reinstalling existing EMI seal and support, go to step d.

b. Cut new EMI seal to size from 11M993-1 stock, detail A.

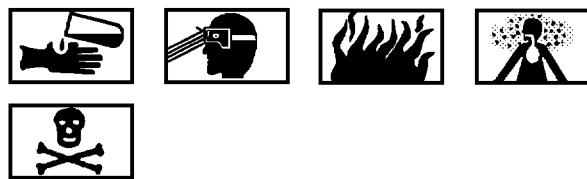
c. Fabricate new 74A313096-2019 support, detail F.



Chemical Conversion Coating, MIL-C-81706, Class 3 (Avionics)

6

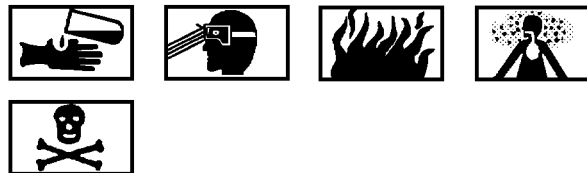
d. Apply MIL-C-81706, Class 3 (avionics) chemical conversion coating to upper and lower surface of 74A313096-2019 support, 74A313036-1009 intercostal and upper surface of 74A313036 intercostal, (A1-F18AC-SRM-500, WP008 00).



Primer Coating, MIL-P-85582, Type 1

5

e. Apply MIL-P-85582, TYPE 1 primer to lower surface of 74A313096-2019 support and upper surface of 74A313036 intercostal, (A1-F18AC-SRM-500, WP018 00).



Polyurethane Coating, MIL-C-85285, #17925

7

f. Apply MIL-C-85285 #17925 polyurethane coating to upper surface of 74A313096-2019 support, (A1-F18AC-SRM-500, WP018 00).



Sealing Compound (Faying Sealant), MIL-S-83430, Type B 1/2

8

g. Fabricate new 74A313036-2011 angle, detail K.

NOTE

No faying sealant on the EMI seal bulb side of support.

h. Apply faying sealant to lower side of 74A313096-2011 intercostal and upper surface of 74A313036 intercostal.

i. While sealant is still wet install EMI seal, support and reinstall intercostal.

NOTE

Do not wet install rivets attaching support, EMI seal, intercostals. Electrical bonding is achieved through the rivets.

j. Install MS20470AD5 rivets.

k. Fillet seal to fill cavity between EMI seal and support.

l. Apply primer to MS20470AD5 rivets, (A1-F18AC-SRM-500, WP018 00).

m. Apply polyurethane coating to MS20470 rivets, (A1-F18AC-SRM-500, WP018 00).

n. Refinish area (A1-F18AC-SRM-500, WP018 00).

o. Install 20mm gun system, (A1-F18AC-750-300, WP003 00).

p. Install door, 74A732015 (A1-F18AC-750-300, WP005 00).

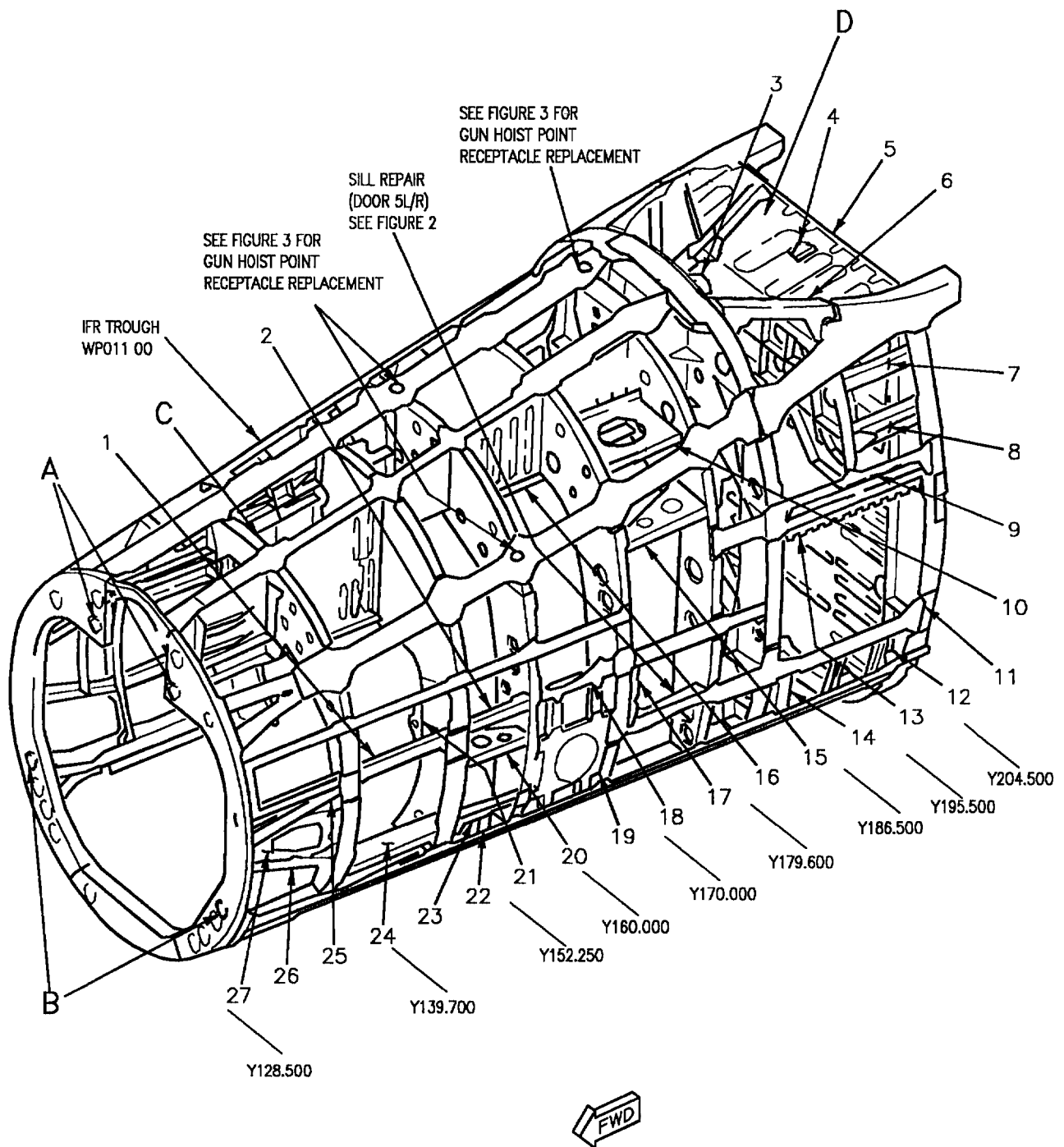


Figure 1. Material Index (Sheet 1)

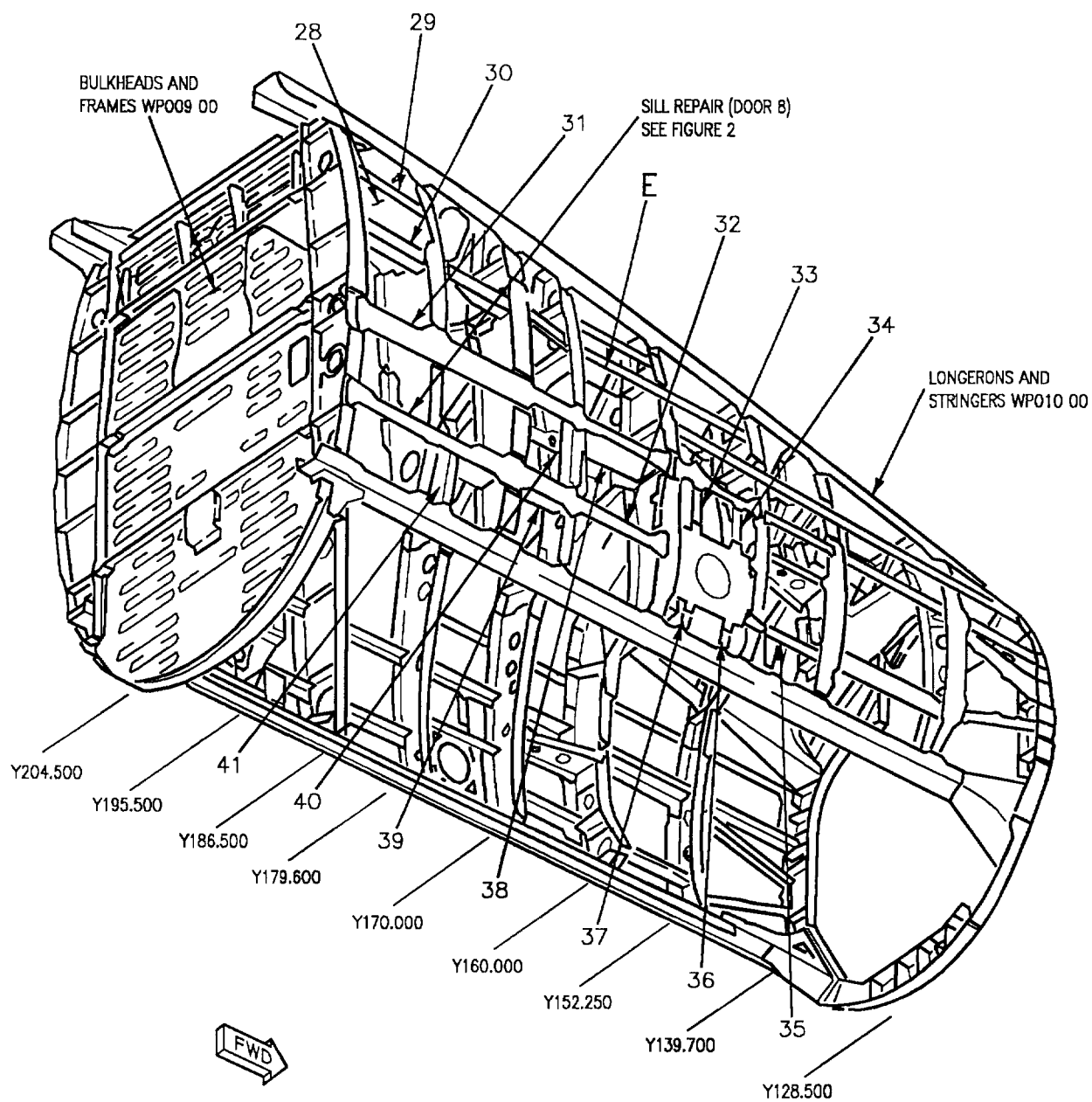


Figure 1. Material Index (Sheet 2)

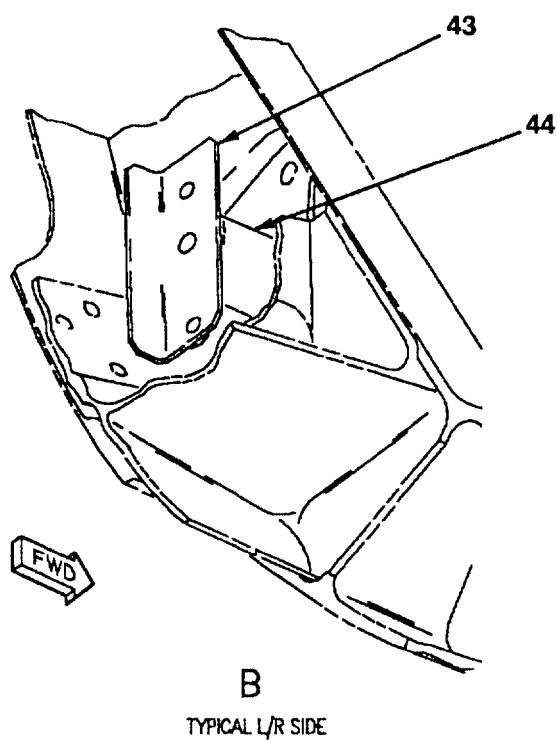
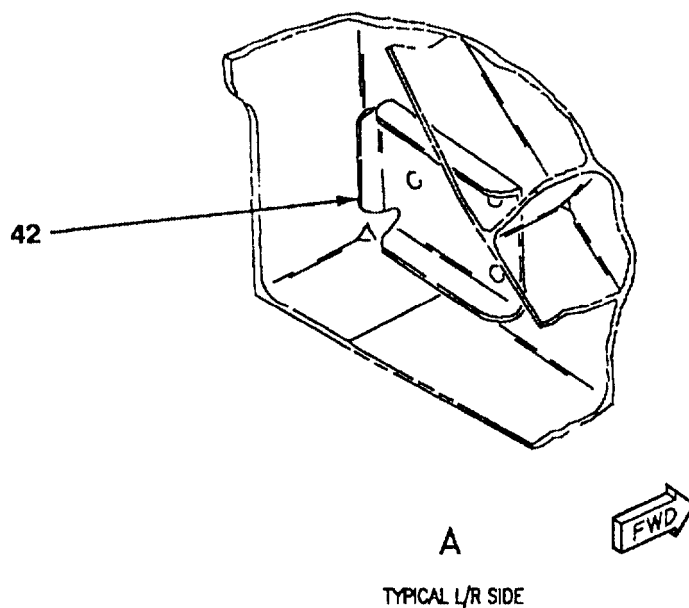


Figure 1. Material Index (Sheet 3)

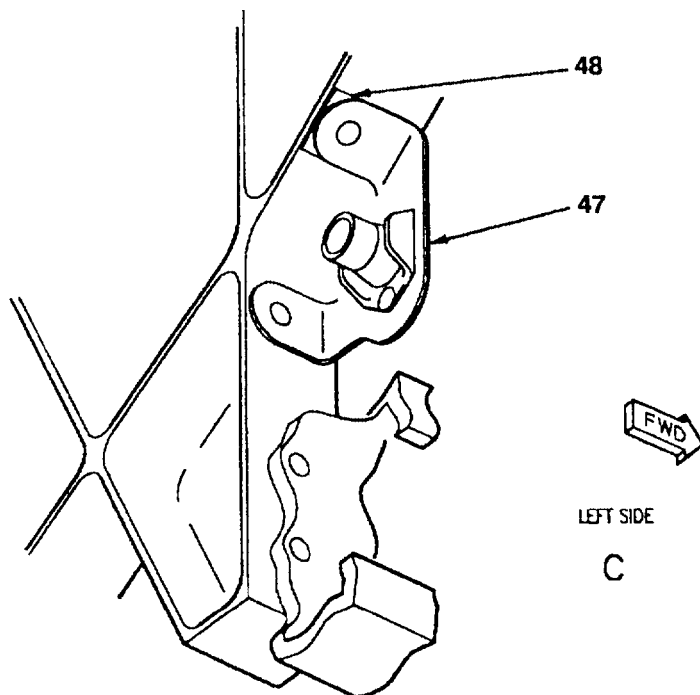
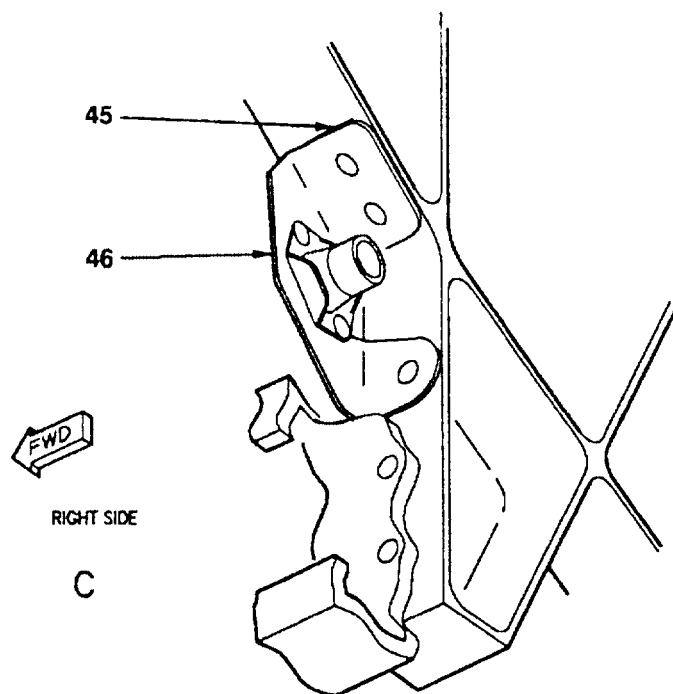


Figure 1. Material Index (Sheet 4)

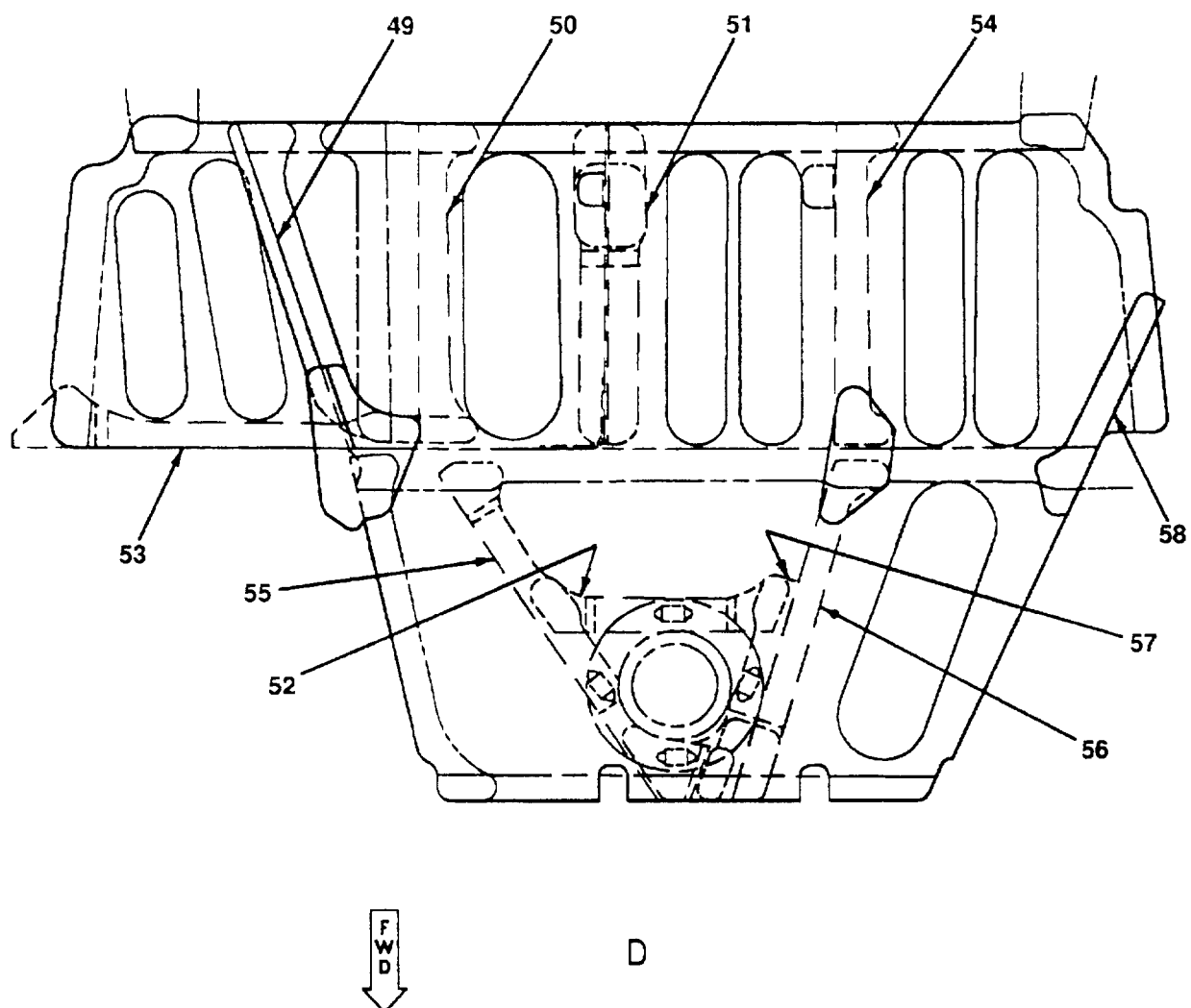


Figure 1. Material Index (Sheet 5)

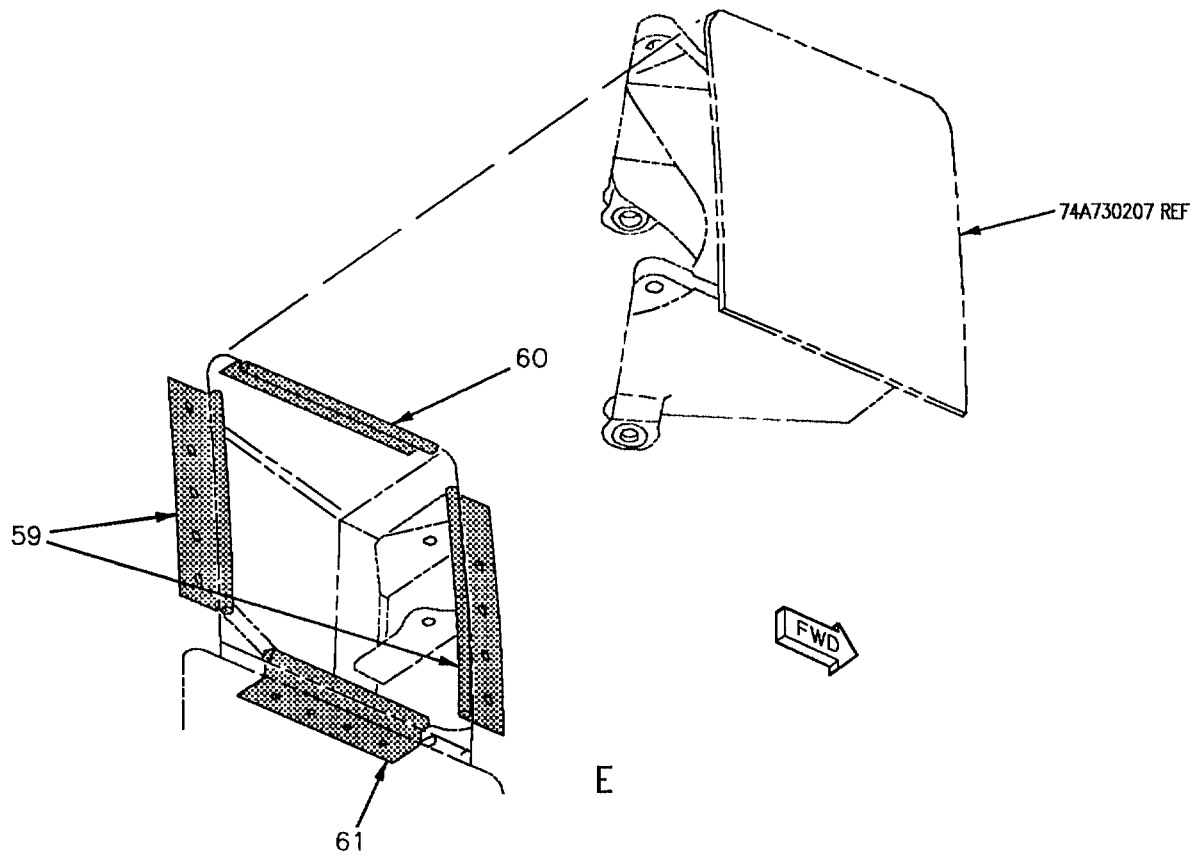


Figure 1. Material Index (Sheet 6)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
1	<div>5</div> <div>8</div> <div>32</div>	Intercostal 74A313087-2019, -2020 74A313087-9035, -9036 74A313087-2075, -2076	0.063 Sheet	7075-T6 Alclad
2		Angle 74A313036-2006, -2005	0.040 Sheet	7075-T6 Alclad
3		Doubler 74A313039-2005	0.050 Sheet	7075-T6 Alclad
4		Tee 74A315057-2001	1MA160D06-10149 Extr	7075-T76511 Al Aly
5		Web Closure 74A313039-1001	0.040 Sheet	7075-T6 Alclad
6		Sill Beam Assembly 74A313080-1001	0.071 Sheet	7075-T6 Alclad
7	<div>30</div> <div>31</div>	Intercostal 74A313181-2015 74A313181-2025	0.080 Sheet	7075-T6 Alclad
8	<div>29</div> <div>18</div>	Intercostal 74A313181-2013 74A313181-2027	0.040 Sheet	7075-T6 Alclad
9		Intercostal 74A313098-2009	1MA160D01-10458 Extr	7075-T76 Al Aly
10	<div>34</div> <div>35</div>	Tray 74A313222-2041 74A313222-2045	0.063 Sheet	7075-T6 Alclad
11	<div>3</div> <div>14</div> <div>9</div> <div>18</div>	Intercostal 74A313037-2009 74A313037-2011 74A313037-2013 74A313037-2015	1MA10436D06 Extr	7075-T76511 Al Aly
12	<div>1</div> <div>2</div> <div>4</div>	Support 74A313168-2003 74A313168-2015 74A313168-2019	Machining	7075-T 73 Al Aly
13	<div>5</div> <div>22</div> <div>23</div>	Leaf Hinge 74A315082-2001 74A315082-2003 74A315082-2007	1MA200D05-10013 Extr	7075-T73511 Al Aly

Figure 1. Material Index (Sheet 7)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
14	<div>1</div> <div>2</div> <div>4</div>	Support 74A313168-9005 74A313168-2013 74A313168-2017	Machining	7075-T73 Al Aly
15	<div>5</div> <div>6</div>	Bracket 74A313016-1001, -1003 74A313016-1005, -1003	0.032 Sheet 0.071 Sheet	7075-T6 Alclad
16		Beam 74A313149-2003	1.50 Plate	7075-T7351 Al Aly
17	<div>29</div>	Hinge 74A313099-2005	1MA10351D05 Extr	7075-T73511 Al Aly
18		Tee 74A313036-2004, -2003	1MA160D01-10215 Extr	7075-T76 Al Aly
19	<div>17</div> <div>25</div> <div>26</div> <div>27</div> <div>28</div>	Support 74A313126-2001, -2002 74A313126-9001 74A313126-2003 74A313126-9003 74A313126-2004	Pressing	7076-T73 Al Aly
20		Intercostal 74A313172-1002, -1003	0.063 Sheet	7075-T6 Alclad
21	<div>5</div> <div>6</div>	Support 74A313072-2003, -2004 74A313072-2005, -2006	Pressing	7076-T73 Al Aly
22		Channel 74A313156-2025	0.063 Sheet	7075-T6 Alclad
23		Tee 74A313156-2007	0.063 Sheet	7075-T6 Alclad
24	<div>5</div> <div>8</div> <div>32</div>	Intercostal 74A313087-2027, -2028 74A313087-9037, -9038 74A313087-2079, -2080	1MA164D01-10034 Extr 1MA164D01-10029 Extr 1MA164D01-10042 Extr	7075-T76 Al Aly
25	<div>5</div> <div>12</div> <div>13</div> <div>33</div>	Tee 74A313087-2037, -2061 74A313087-9025, -9029 74A313087-2067, -2071 74A313087-2099, -2071	1MA164D01-10041 Extr	7075-T76 Al Aly

Figure 1. Material Index (Sheet 8)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
26	<div>5</div> <div>12</div> <div>20</div> <div>21</div> <div>33</div>	Tee 74A313087-2035, -2059 74A313087-9023, -9027 74A313087-2065, -2069 74A313087-2089, -2091 74A313087-2101, -2091	1MA164D01-10041 Extr	7075-T76 Al Aly
27	<div>5</div> <div>12</div> <div>10</div> <div>11</div> <div>7</div>	Support 74A313087-2033, -2064 74A313087-9031, -9032 74A313087-2073, -2074 74A313087-9051, -9052 74A313087-2093, -2094	0.125 Sheet	7075-T75 Alclad
28	<div>24</div> <div>16</div> <div>15</div>	Web 74A313199-2039 74A313199-9013 74A313199-2039	0.040 Sheet	7075-T6 Alclad
29		Angle 74A313199-2005	0.050 Sheet	7075-T6 Alclad
30		Angle 74A313199-2007	0.050 Sheet	7075-T6 Alclad
31	<div>29</div> <div>18</div>	Tee 74A313036-2023 74A313036-2025	1MA160D01-10468 Extr	7075-T76 Al Aly
32	<div>29</div> <div>18</div>	Intercostal 74A313035-2009 74A313035-2015	1MA164D06-10032 Extr	7075-T76511 Al Aly
33	<div>19</div> <div>32</div>	Stiffener 74A313073-2005, -2006 74A313073-2025, -2026	0.050 Sheet	7075-T6 Alclad
34		Stiffener 74A313073-2007, -2020	0.050 Sheet	7075-T6 Alclad
35		Angle 74A313192-2019	0.040 Sheet	7075-T6 Alclad
36		Stiffener 74A313073-2003, -2004	0.050 Sheet	7075-T6 Alclad
37	<div>19</div> <div>32</div>	Stiffener 74A313073-2009, -2010 74A313073-2023, -2024	0.050 Sheet	7075-T6 Alclad
38		Angle 74A313036-2011	0.032 Sheet	7075-T6 Alclad

Figure 1. Material Index (Sheet 9)



Idx No.	Eft	Nomenclature and Part No.	Description	Material
39		Bracket 74A313035-2011	0.050 Sheet	7075-T6 Alclad
40		Angle 74A315077-2017	0.050 Sheet	7075-T6 Alclad
41		Bracket 74A313070-2009	0.040 Sheet	7075-T6 Alclad
42		Bracket 74A313015-2159	0.050 Sheet	7075-T6 Alclad
43		Angle 74A313079-2023	0.040 Sheet	7075-T6 Alclad
44		Spacer 74A313074-2001, -2002 74A313074-2003, -2004	Machining	7075-T7351 Al Aly
45		Shim 74A313015-2171	0.062 Laminated	5052-H39 Al Laminate
46		Bracket 74A313015-2089 74A313015-2173 74A313015-2191	0.050 Sheet	7075-T6 Alclad
47		Bracket 74A313030-2047	0.050 Sheet	7075-T6 Alclad
48		Shim 74A313030-2081	0.062 Laminated	5052-H39 Al Laminate
49		Angle 74A333039-2007	0.050 Sheet	7075-T6 Alclad
50		Angle 74A313039-2009	0.040 Sheet	7075-T6 Alclad
51		Tee 74A313039-2045	1MA160D01-10161 Extr	7075-T6 Alclad
52		Angle 74A313039-2013	0.040 Sheet	7075-T6 Alclad
53		Angle 74A313039-2035	0.050 Sheet	7075-T6 Alclad
54		Angle 74A313039-2043	0.040 Sheet	7075-T6 Alclad
55		Angle 74A313039-2021	0.040 Sheet	7075-T6 Alclad

Figure 1. Material Index (Sheet 10)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
56		Angle 74A313039-2037	0.040 Sheet	7075-T6 Alclad
57		Angle 74A313039-2039	0.040 Sheet	7075-T6 Alclad
58		Angle 74A313039-2033	0.040 Sheet	7075-T6 Alclad
59		EMI Seal 74A313011-2013	11M993-1 X 4.60	
60		EMI Seal 74A313096-2015	11M993-1 X 4.35	
61		EMI Seal 74A313036-2017	11M993-1 X 3.74	

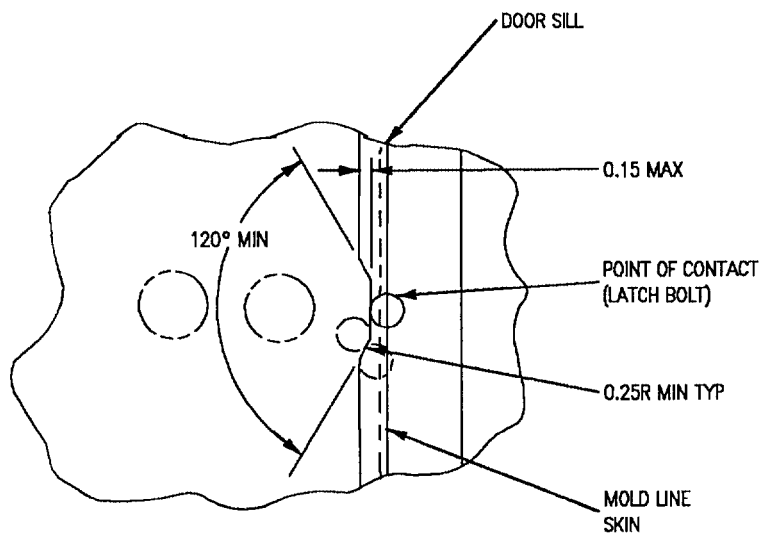
LEGEND

- 1 161353.
- 2 161354 THRU 161527.
- 3 161353 THRU 161527.
- 4 161528 AND UP.
- 5 161353 THRU 161528.
- 6 161702 AND UP.
- 7 162444 AND UP.
- 8 161702 THRU 161736.
- 9 161737 THRU 162477.
- 10 161716 THRU 161965.
- 11 161966 THRU 162443.
- 12 161702 THRU 161715.
- 13 161716 THRU 162880, 162882 THRU 162892, 162894, 162895, 162897 THRU 162900, 162902, 162903
162905, 162907, 162909, 163093 THRU 163096, 163098 THRU 163103.
- 14 161528 THRU 161736.
- 15 161353 THRU 161944.
- 16 161945 THRU 161985.
- 17 161353 THRU 161730.
- 18 162826 AND UP.
- 19 161353 THRU 161736.
- 20 161716 THRU 161965, 161968, 161971, 161973, 161976, 161979, 161981, 161984 AND 161986.
- 21 161966, 161967, 161969, 161970, 161972, 161974, 161975, 161977, 161978, 161980, 161982, 161983,
161985, 161987 THRU 162880, 162882 THRU 162892, 162894, 162895, 162897 THRU 162900, 162902,
162903, 162905, 162907, 162909, 163093 THRU 163096, 163098 THRU 163103.
- 22 161702 THRU 161987.
- 23 162394 AND UP.
- 24 161986 AND UP.
- 25 161731 THRU 161751, 161935, 161944, 161949, 161954, 161957, 161961, 161964, 161968, 161971, 161973.

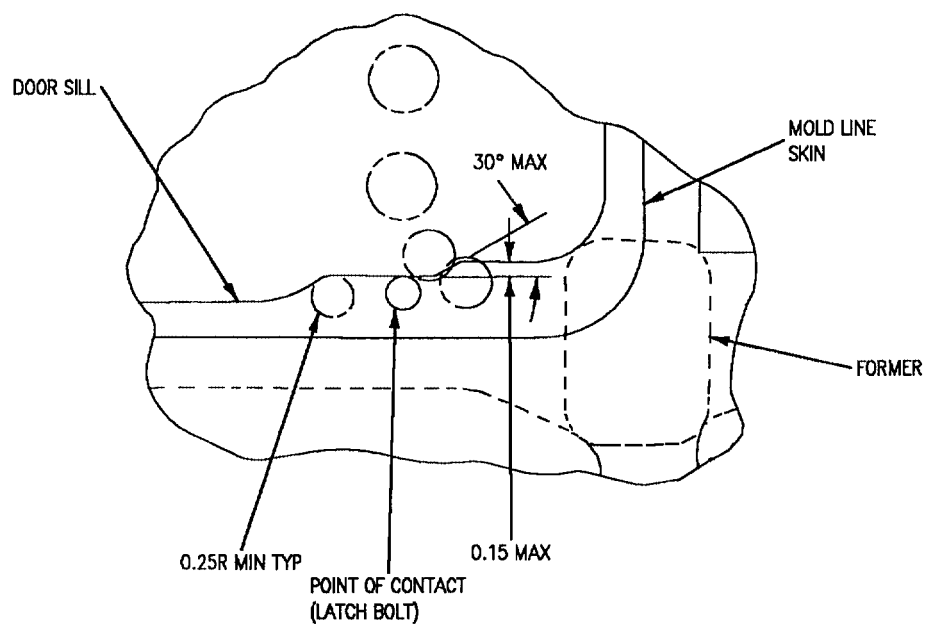
Figure 1. Material Index (Sheet 11)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
26		161752 THRU 161934, 161936 THRU 161943, 161945 THRU 161948, 161950 THRU 161953, 161955, 161956, 161958 THRU 161960, 161962, 161963, 161965 THRU 161967, 161969, 161970, 161972, 161974 AND UP.		
27		161731 THRU 161759, 161935, 161944, 161949, 161954, 161957, 161961, 161964, 161968, 161971, 161973.		
28		161760 THRU 161934, 161936 THRU 161943, 161945 THRU 161948, 161950 THRU 161953, 161955, 161956 161958 THRU 161960, 161962, 161963, 161965 THRU 161967, 161969, 161970, 161972, 161974 AND UP.		
29		161353 THRU 162477.		
30		161353 THRU 161987.		
31		162394 THRU 162477.		
32		161737 AND UP.		
33		162881, 162893, 162896, 162901, 162904, 162906, 162908, 163092, 163097, 163105 AND UP.		
34		162394 THRU 162909.		
35		163092 AND UP.		
36		F/A-18A 161353 THRU 162838, 162840 THRU 162865, F/A-18B 161354 THRU 162427.		
37		F/A-18A, 162839, 162866 AND UP F/A-18B 162836 AND UP.		
38		161702 THRU 162865, 162881, 162893, 162896, 162901, 162904, 162906 AND 162908.		
39		162866 THRU 162880, 162882 THRU 162892, 162894, 162895, 162897 THRU 162900, 162902, 162903, 162905, 162907, 162909 AND UP.		

Figure 1. Material Index (Sheet 12)

**DOOR 5L/R SILL**

161353 THRU 161737



THIS REPAIR IS TYPICAL FOR FWD AND
AFT LATCH BOLT, POINT OF CONTACT.

DOOR 8 SILL

161353 THRU 161737

Figure 2. Sill Repair (Door 5 L/R and 8)

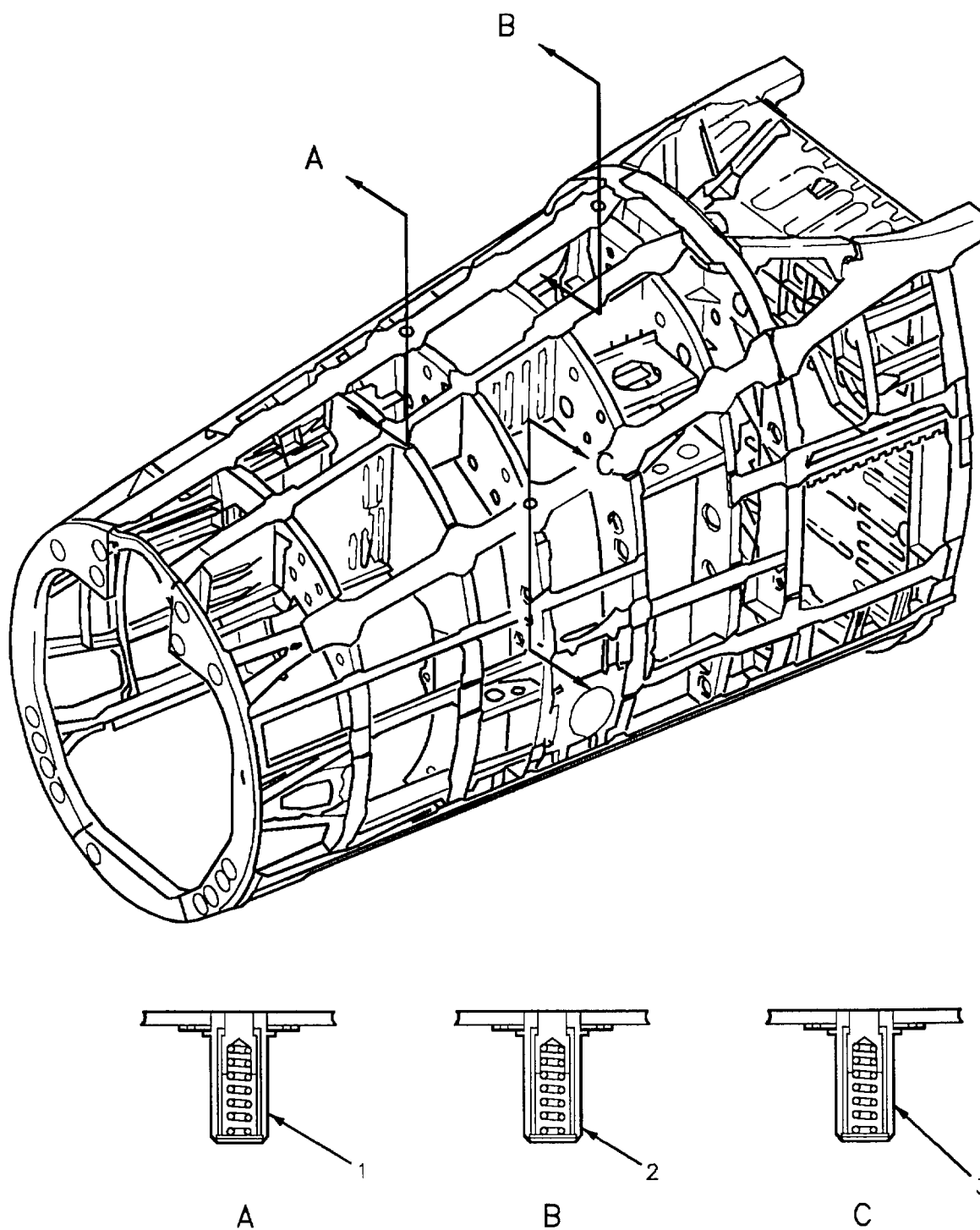


Figure 3. Gun Hoist Point Receptacle Replacement (Sheet 1)
















Idx No.	Eft		Nomenclature	Part Number
1			Receptacle 	 52171A-4C1-160
2			Receptacle 	 52171A-4C1-205
3			Receptacle 	 52171A-4C1-150
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.386 +0.007 -0.000.</p> <p> Hole diameter is 0.397 +0.007 -0.000.</p> <p> Receptacles attached with BRFS4AD4 rivets.</p> <p> Preferred replacement for 52956A4-1-160.</p> <p> Preferred replacement for 52956A4-1-205.</p> <p> Preferred replacement for 52956A4-1-150.</p>				

Figure 3. Gun Hoist Point Receptacle Replacement (Sheet 2)

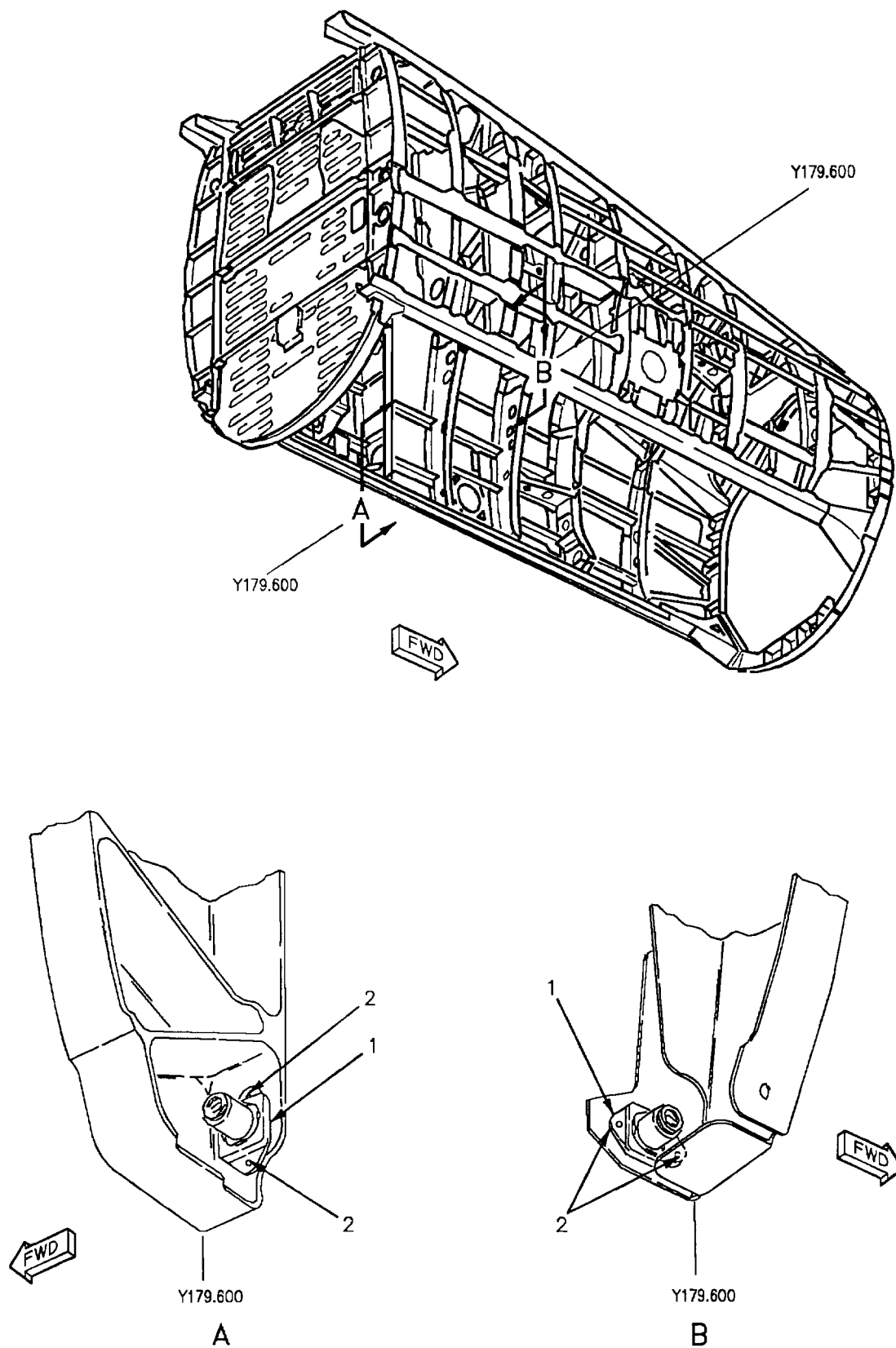


Figure 4. Gun Guide Rail Receptacle Replacement (Sheet 1)





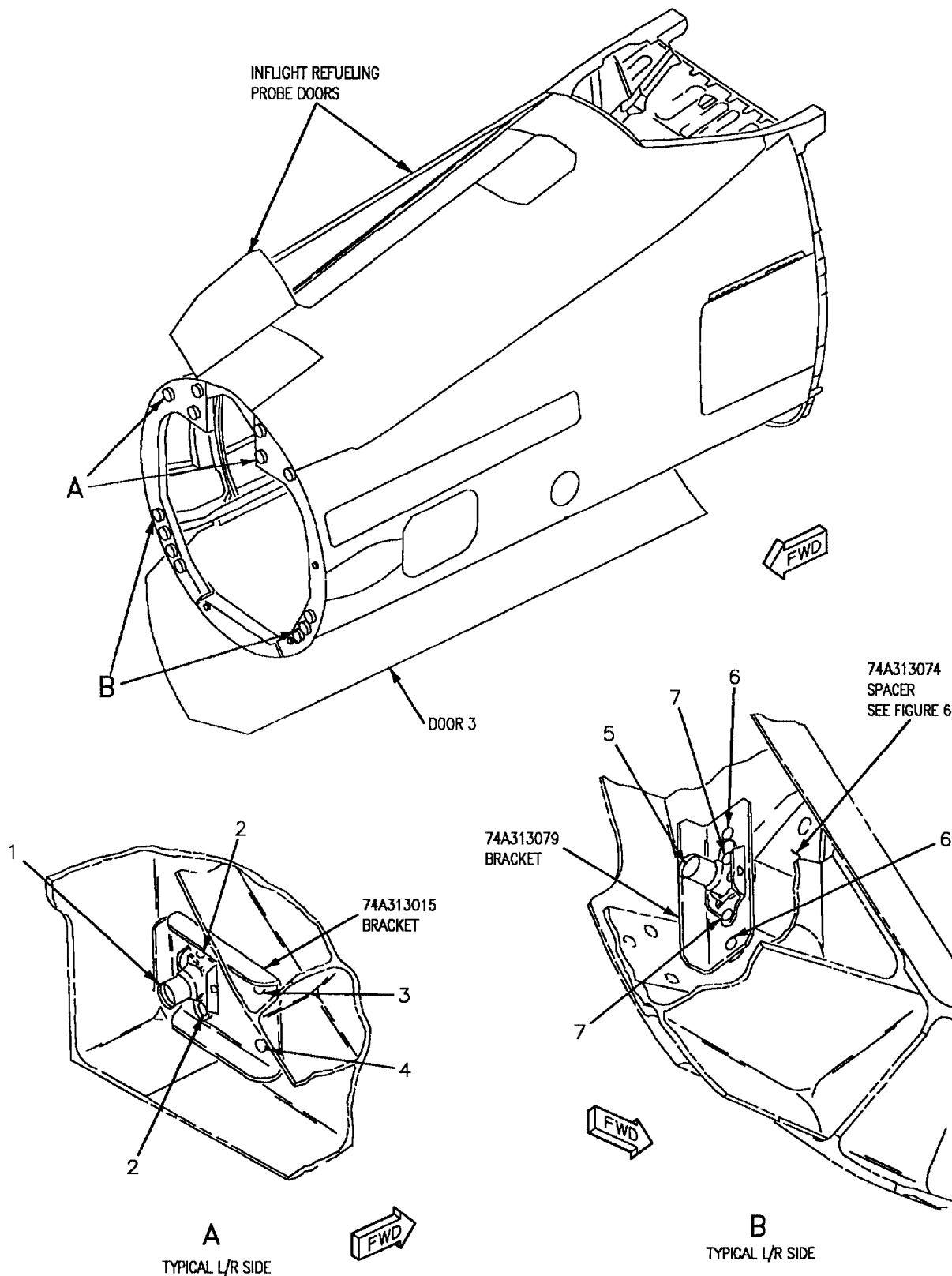
Idx No.	Eft		Nomenclature	Part Number
1			Receptacle	R4650-1-Z
2			Rivet	CSR904B-3-4
LEGEND				
 Hole diameter is 0.354 +0.006 -0.000.				
 Hole diameter is 0.098 +0.008 -0.000.				

Figure 4. Gun Guide Rail Receptacle Replacement (Sheet 2)



18AC-SRM-221-(8-1)01-SCAN

Figure 5. Replacement of Plate Nuts for Securing Radar Set (Sheet 1)













Idx No.	Eft		Nomenclature	Part Number
1			Plate Nut	F50942-4-7
2			Rivet	CSR904B-3-4
3			Rivet	BRFS4AD
4			Rivet	MS20470AD5
5			Plate Nut	F50942-4-5
6			Rivet	CSR903B-4-4
7			Rivet	NAS1097U3-4
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.257 +0.007 -0.000.</p> <p> Hole diameter is 0.250 +0.006 -0.000.</p> <p> Hole diameter is 0.098 +0.008 -0.000.</p> <p> Hole diameter is 0.128 +0.006 -0.000.</p> <p> Hole diameter is 0.159 +0.007 -0.000.</p>				

Figure 5. Replacement of Plate Nuts for Securing Radar Set (Sheet 2)

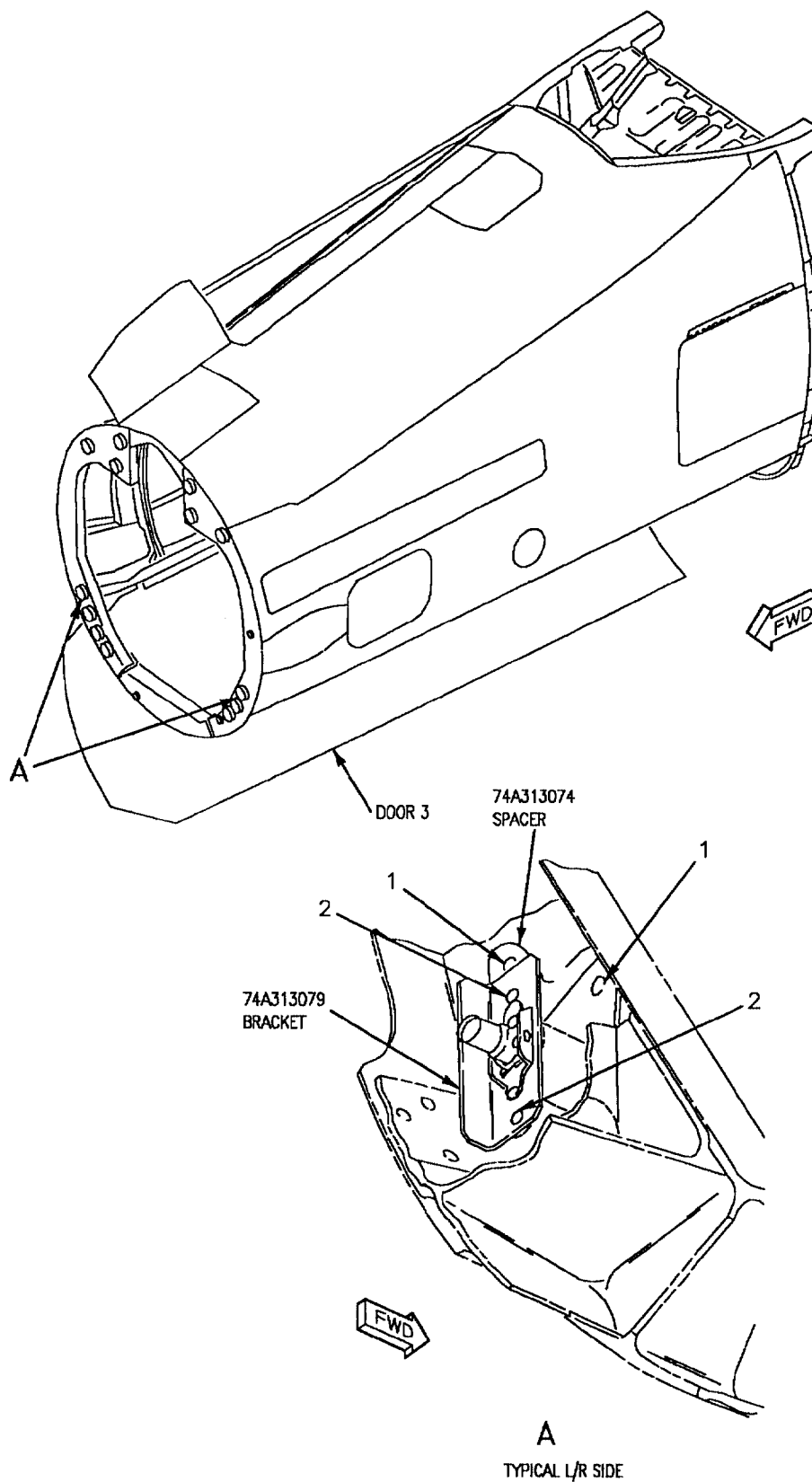


Figure 6. Radar Set, 74A313074, Spacer Replacement (Sheet 1)





Idx No.	Eft		Nomenclature	Part Number
1			Pin Collar	NAS2706V10 NAS1080AG06
2			Rivet	CSR903B-4-4
LEGEND				
 Hole diameter is 0.1895 +0.0025 -0.0000.				
 Hole diameter is 0.128 +0.006 -0.000.				

Figure 6. Radar Set, 74A313074, Spacer Replacement (Sheet 2)

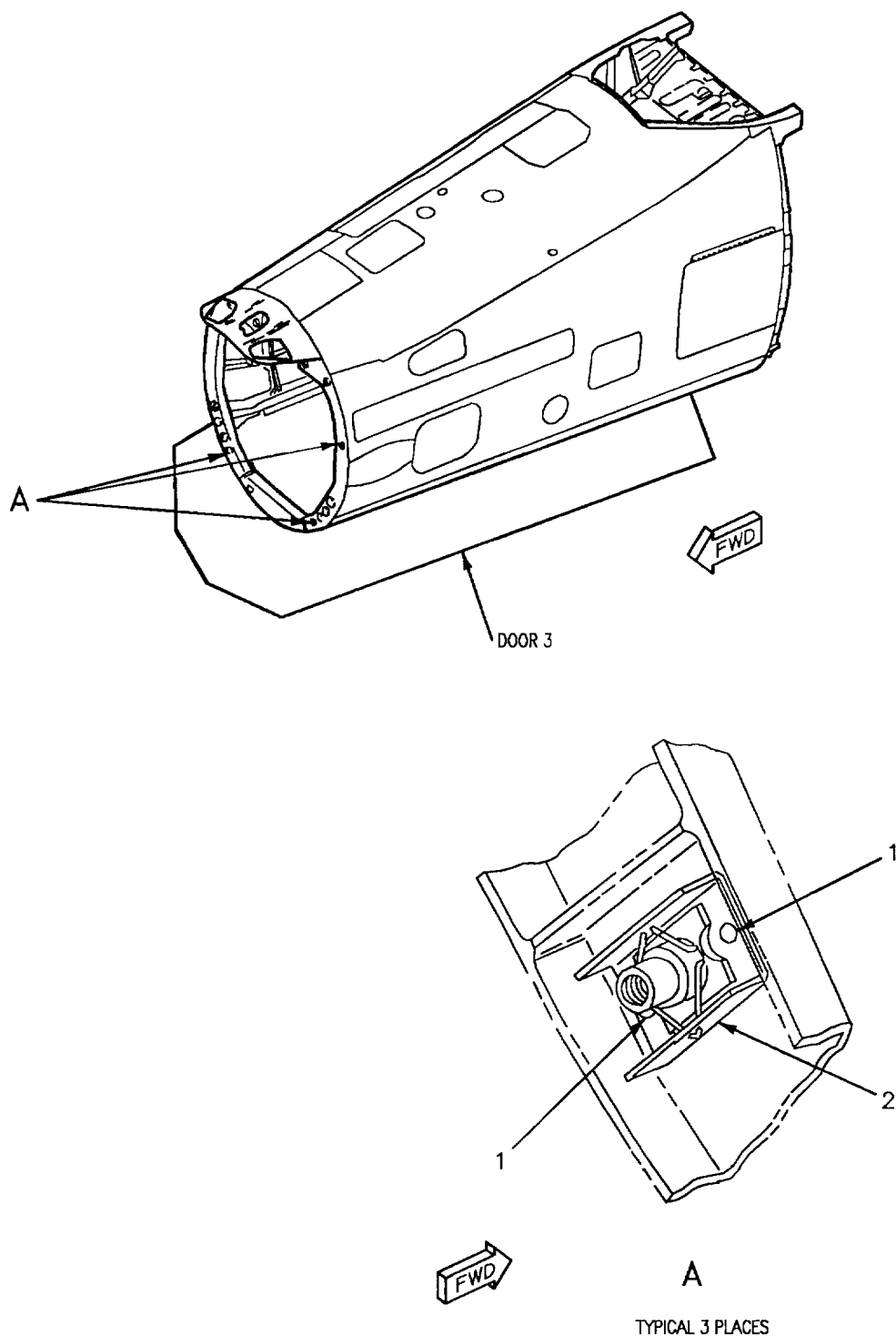


Figure 7. Replacement of Gang Channel for Boresight Reference Frame (Sheet 1)



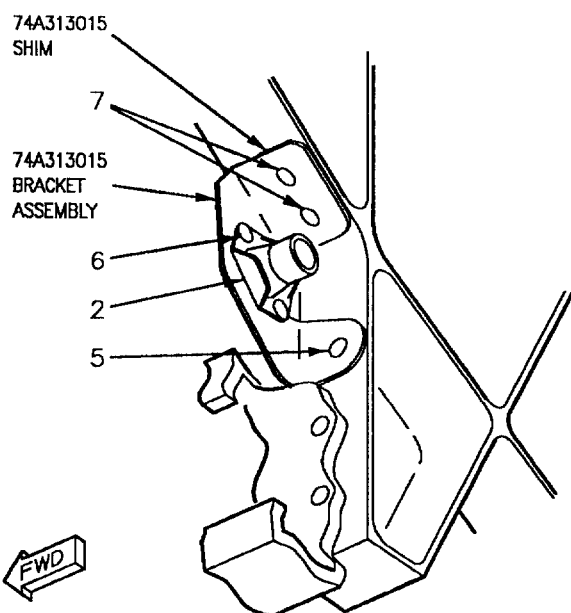
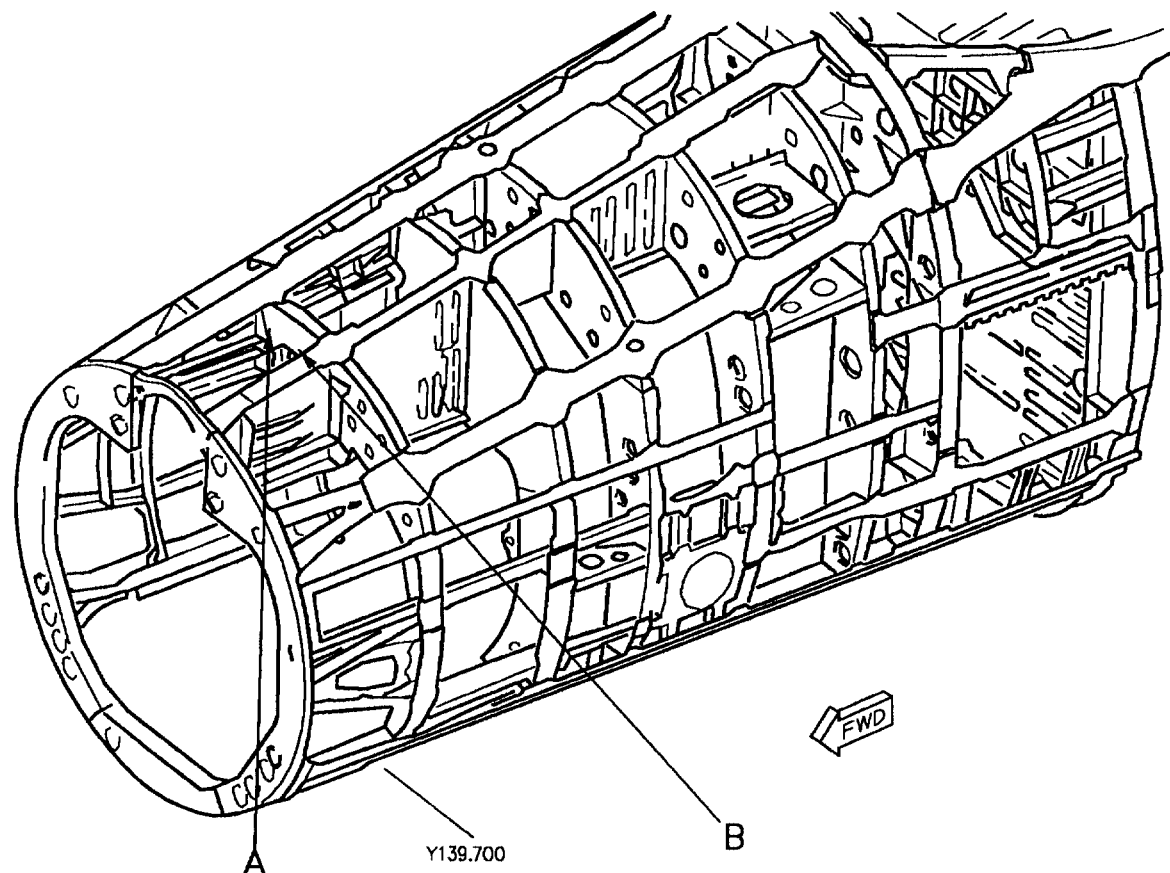
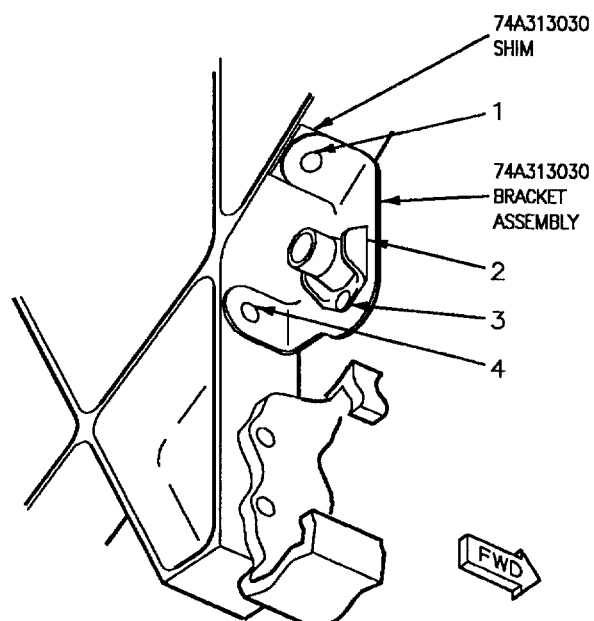
Idx No.	Eft		Nomenclature	Part Number
1			Rivet	CSR904B3
2			Gang Channel	G18421JL1-5-13
<div><div></div><div>LEGEND</div><div>Hole diameter is 0.098 +0.008 -0.000.</div></div>				

Figure 7. Replacement of Gang Channel for Boresight Reference Frame (Sheet 2)

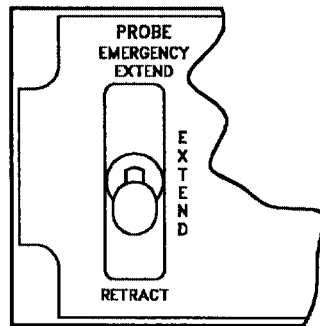


RIGHT SIDE
A

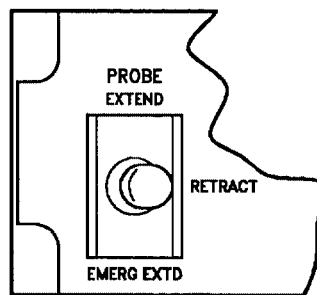


LEFT SIDE
B

Figure 8. Replacement of Plate Nut for Securing Gun Blast Diffuser (Sheet 1)



161353 THRU 161528



161702 AND UP

COCKPIT FUEL SYSTEM CONTROL PANEL

Figure 8. Replacement of Plate Nut for Securing Gun Blast Diffuser (Sheet 2)














Idx No.	Eft		Nomenclature	Part Number
1			Jo-Bolt Shim	NAS1673-08L2 74A313030-2081
2			Plate Nut	F50405-6
3			Rivet 	BRFS4AD
4			Pin Collar	NAS2605V-5-3 NAS1080AG05
5			Pin Collar	NAS2605V-5-8 NAS1080AG05
6			Rivet 	CSR904B-4
7			Jo-Bolt Shim	NAS1673-08L2 74A313015-2171
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.1635 +0.0025 -0.0000.</p> <p> Hole diameter is 0.386 +0.007 -0.000.</p> <p> Hole diameter is 0.128 +0.006 -0.000.</p> <p> Two places.</p>				

Figure 8. Replacement of Plate Nut for Securing Gun Blast Diffuser (Sheet 3)

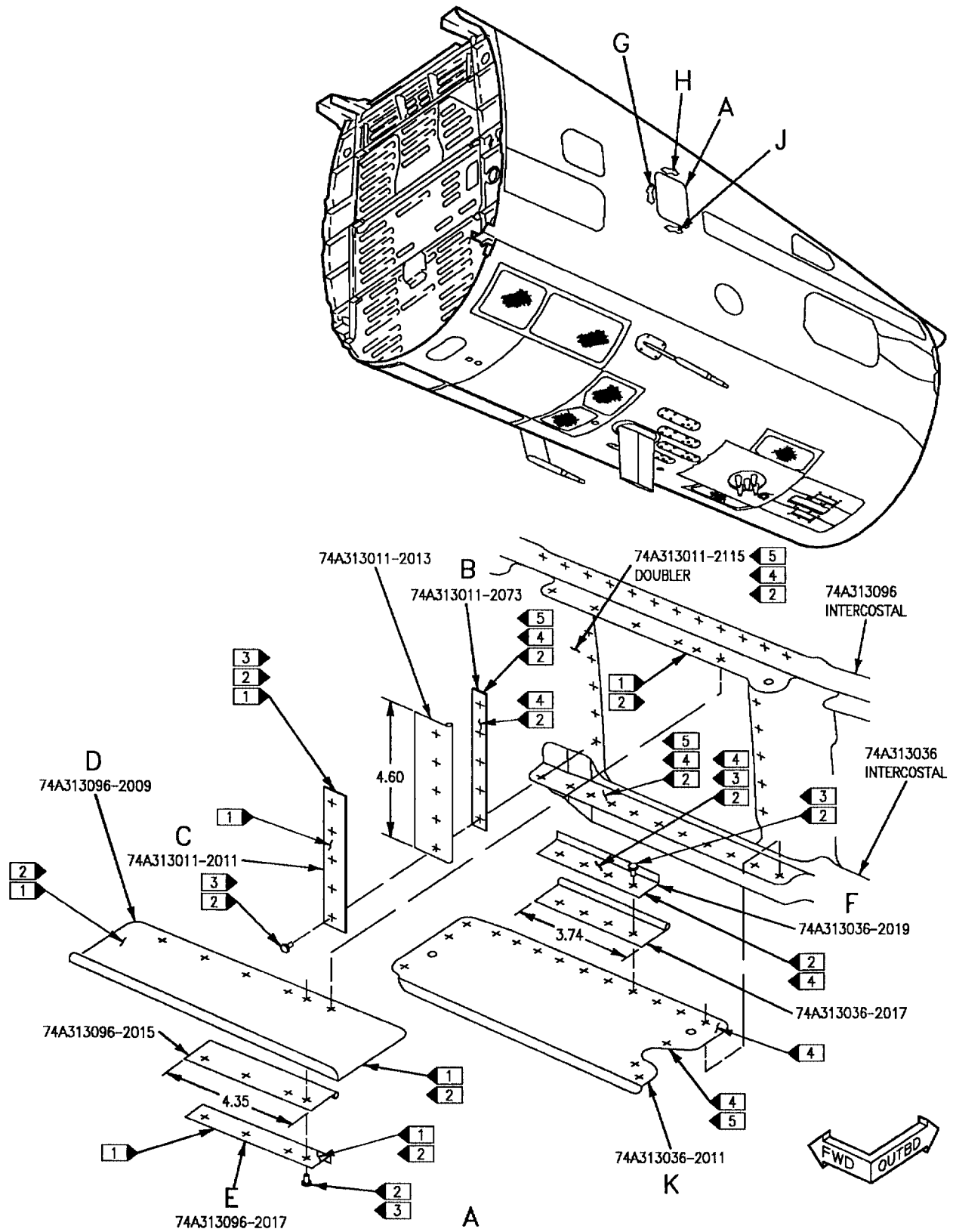
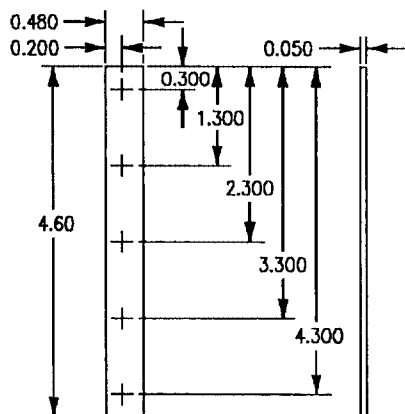
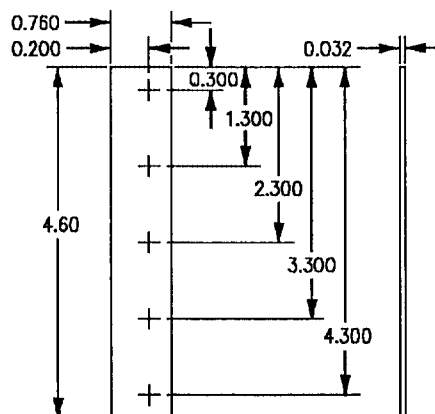


Figure 9. Replacement, Gun Purge Door EMI Seals (Sheet 1)



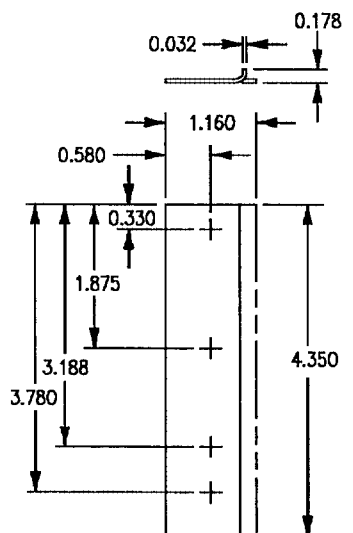
74A313011-2073
MATERIAL: 7075-T6 ALCLAD
0.050 X 0.480 X 4.60

B



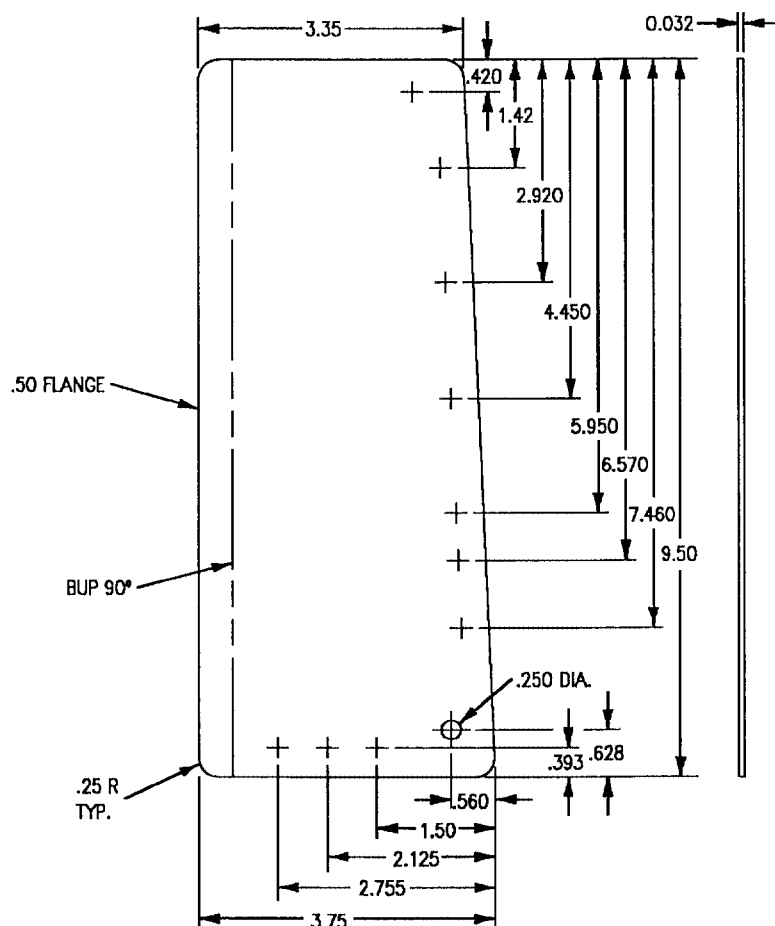
74A313011-2011
MATERIAL: 7075-T6 ALCLAD
0.032 X 0.760 X 4.60

C



74A313096-2017
MATERIAL: 7075-T6 ALCLAD
0.032 X 1.16 X 4.35

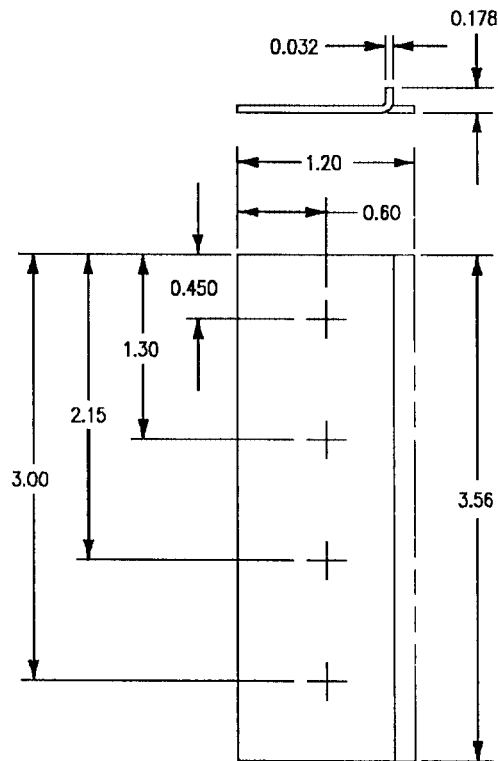
E



74A313096-2009
MATERIAL: 7075-T6 ALCLAD
0.032 X 3.90 X 9.50

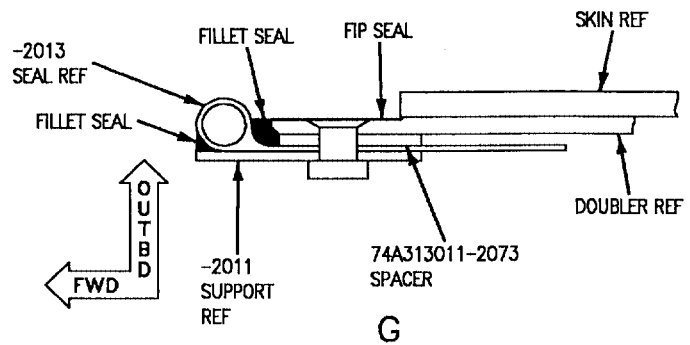
D

Figure 9. Replacement, Gun Purge Door EMI Seals (Sheet 2)

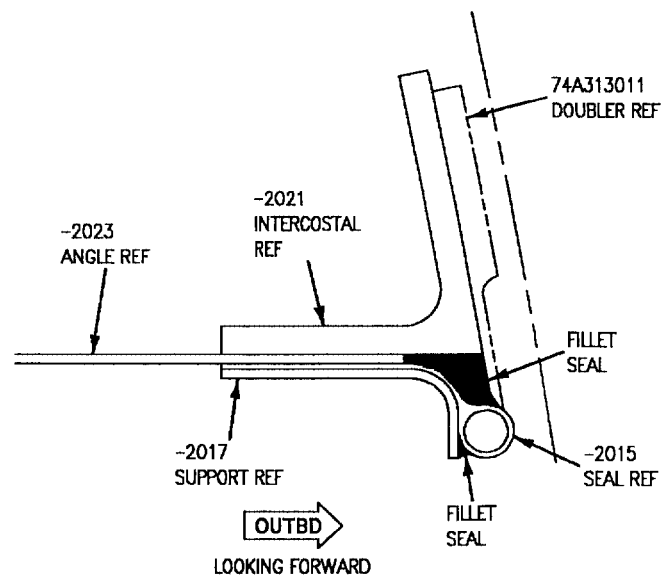


F

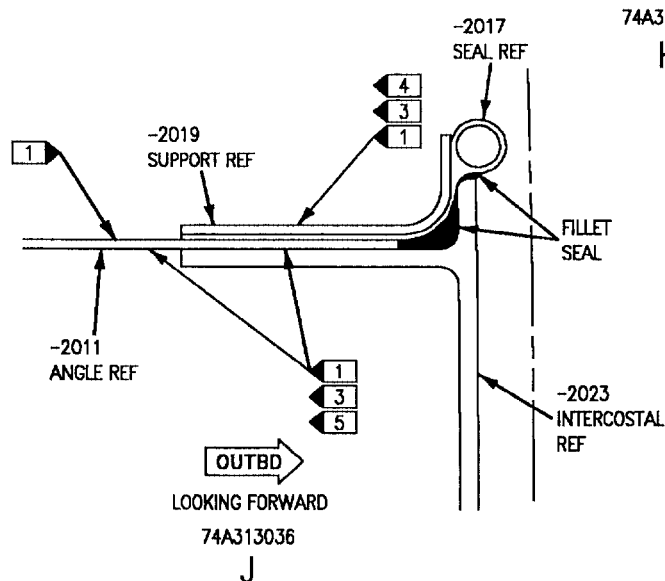
74A313036-2019
MATERIAL: 7075-T6 ALCLAD
0.032 X 1.20 X 3.56



G

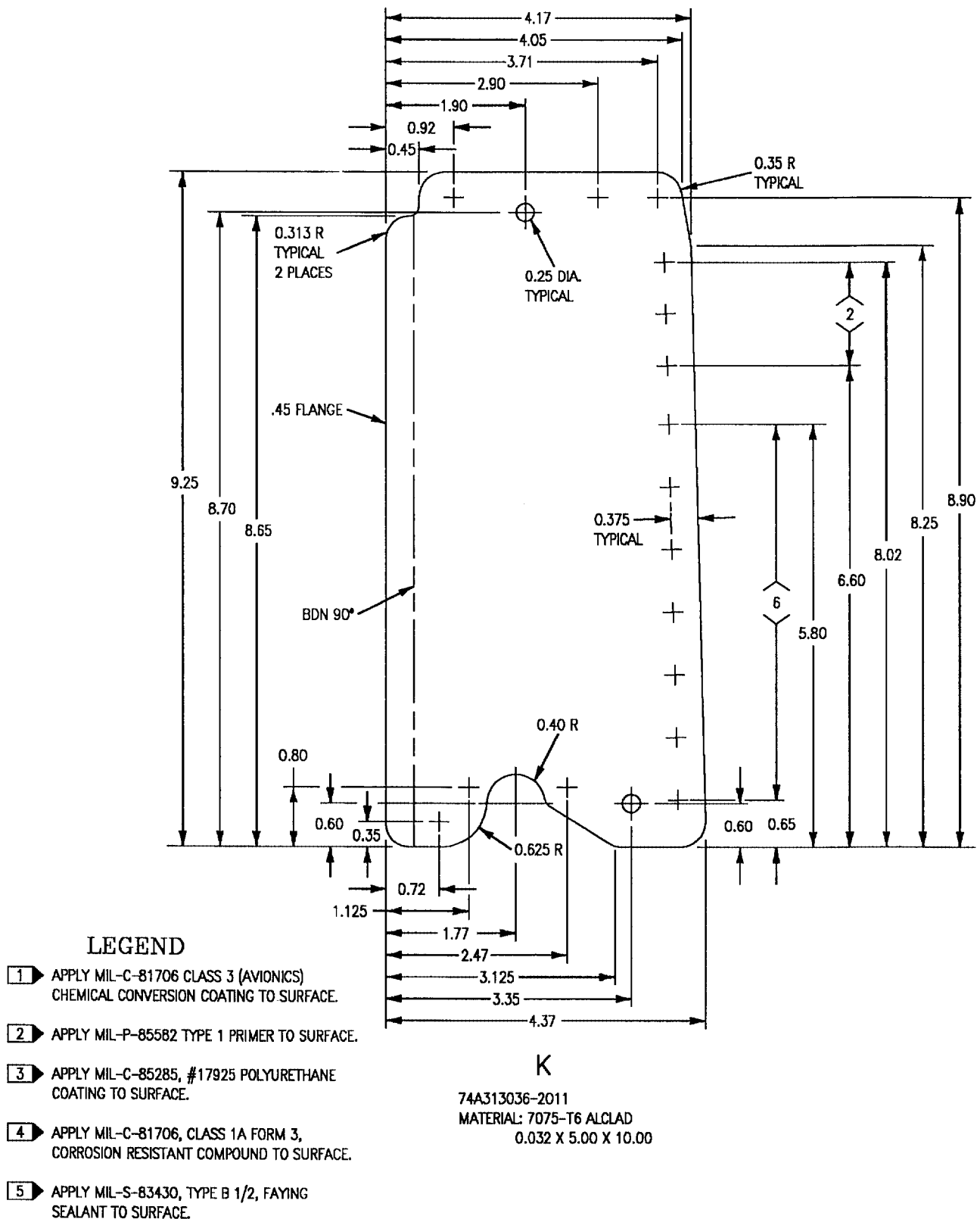


H



J

Figure 9. Replacement, Gun Purge Door EMI Seals (Sheet 3)



18AC-SRM-221-(143-4)04-CATI

Figure 9. Replacement, Gun Purge Door EMI Seals (Sheet 4)

ORGANIZATIONAL MAINTENANCE

STRUCTURE REPAIR

NOSE BARREL BULKHEADS, FRAMES AND BALLAST

Reference Material

Structure Illustrated Parts Breakdown, Forward Fuselage A1-F18AC-SRM-420
 Weight, Counterbalance - Fus Nose Section, Instl of FIG038 00

Alphabetical Index

Subject	Page No.
Damage Evaluation	1
Negligible Damage	1
Repairable Damage	1
Repairs	1
Replacement	1
Ballast Installation	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 48	-	Automatic AC Bus Isolation, Incorporation of (ECP MDA-F/A-18-00121)	15 Nov 86	-

Support Equipment Required

None

Materials Required

None

1. **DAMAGE EVALUATION.** See figure 1.

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The types of material used are shown on figure 1.

3. **NEGLIGIBLE DAMAGE.** Damage requires depot engineering disposition.

4. **REPAIRABLE DAMAGE.** Damage requires depot engineering disposition.

5. **REPAIRS.**

6. Damage requires depot engineering disposition.

7. **REPLACEMENT.**

8. **BALLAST INSTALLATION.** See figure 2. Ballast weights and plates are interchangeable. For attaching parts (A1-F18AC-SRM-420, FIG038 00).

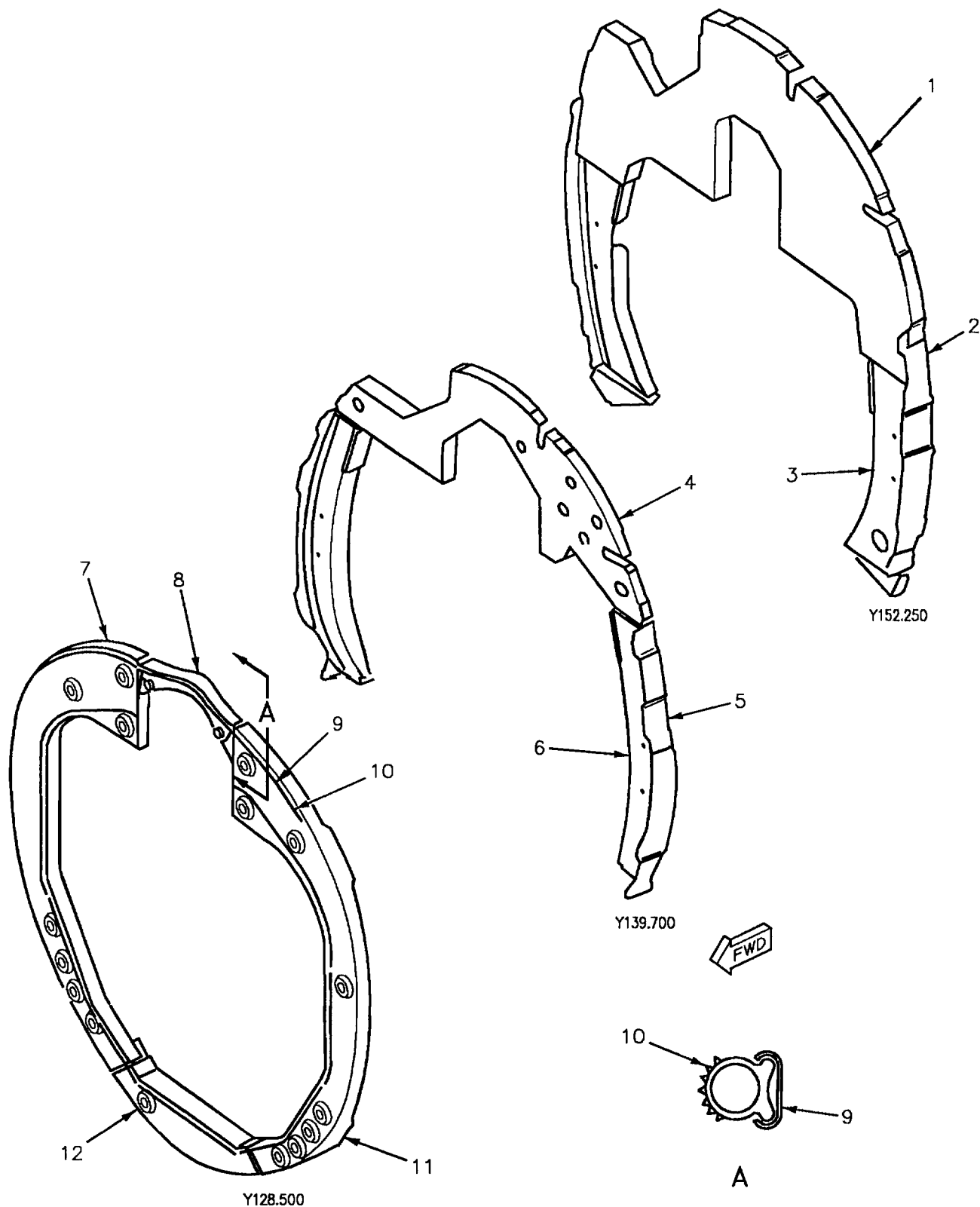


Figure 1. Material Index (Sheet 1)

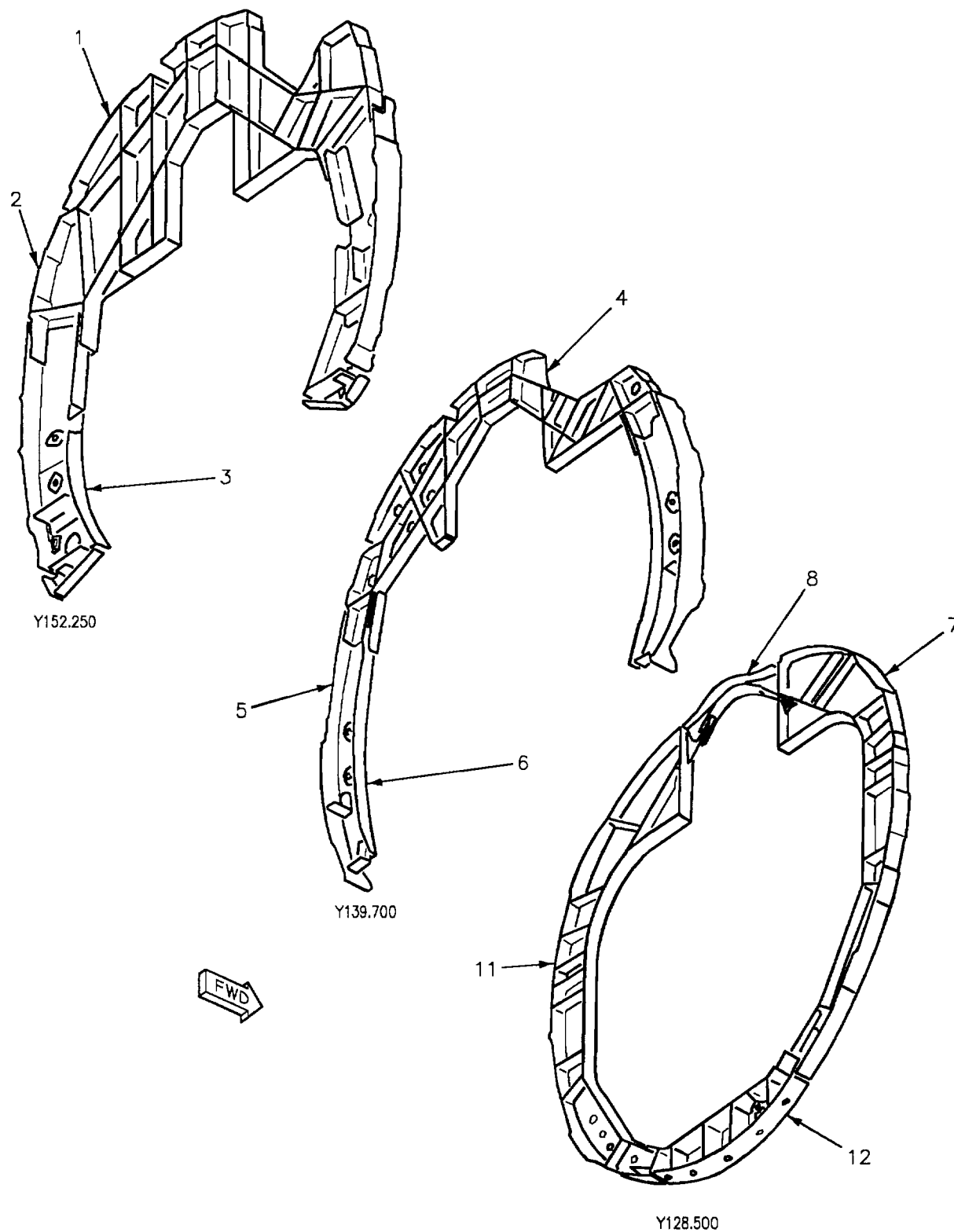


Figure 1. Material Index (Sheet 2)

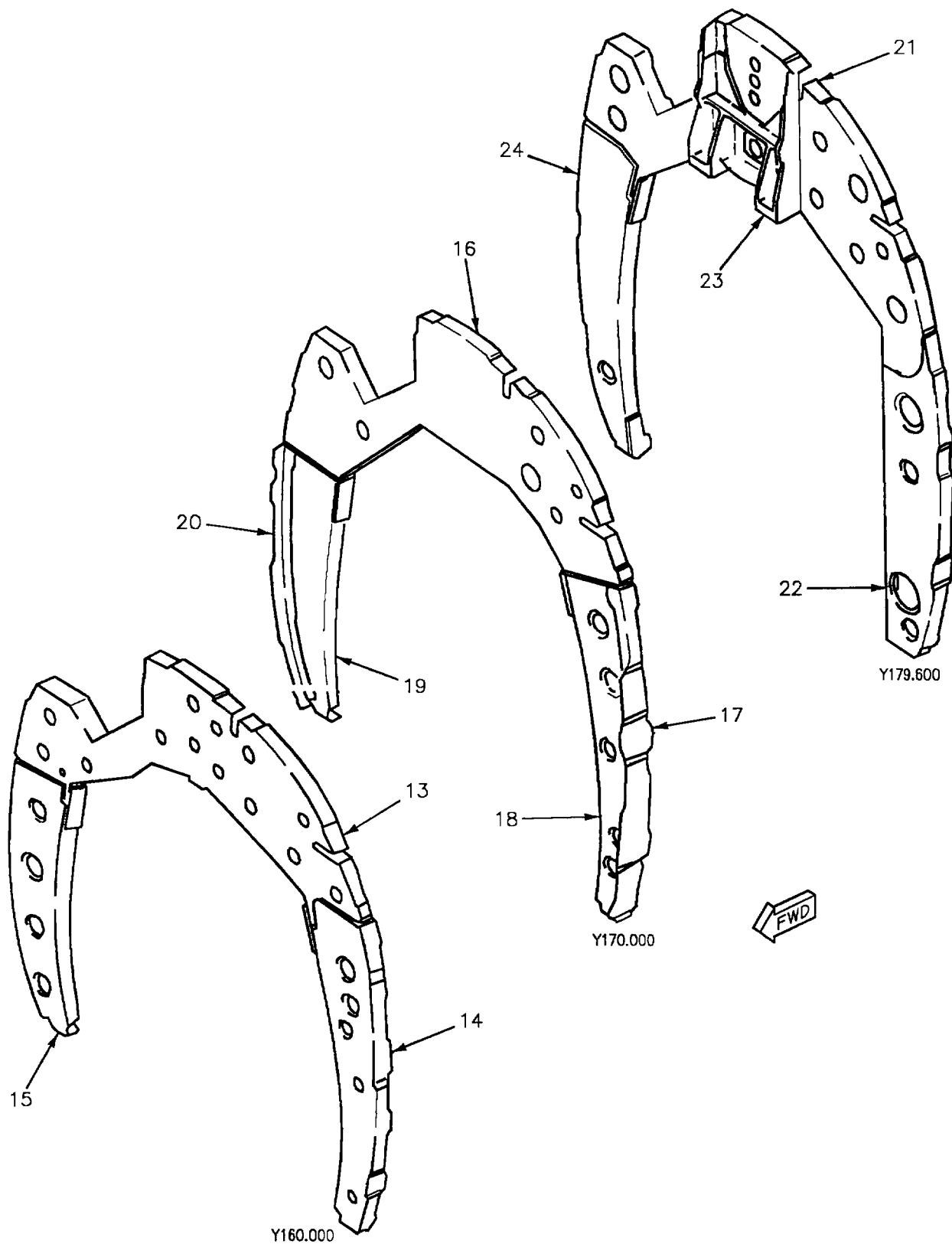


Figure 1. Material Index (Sheet 3)

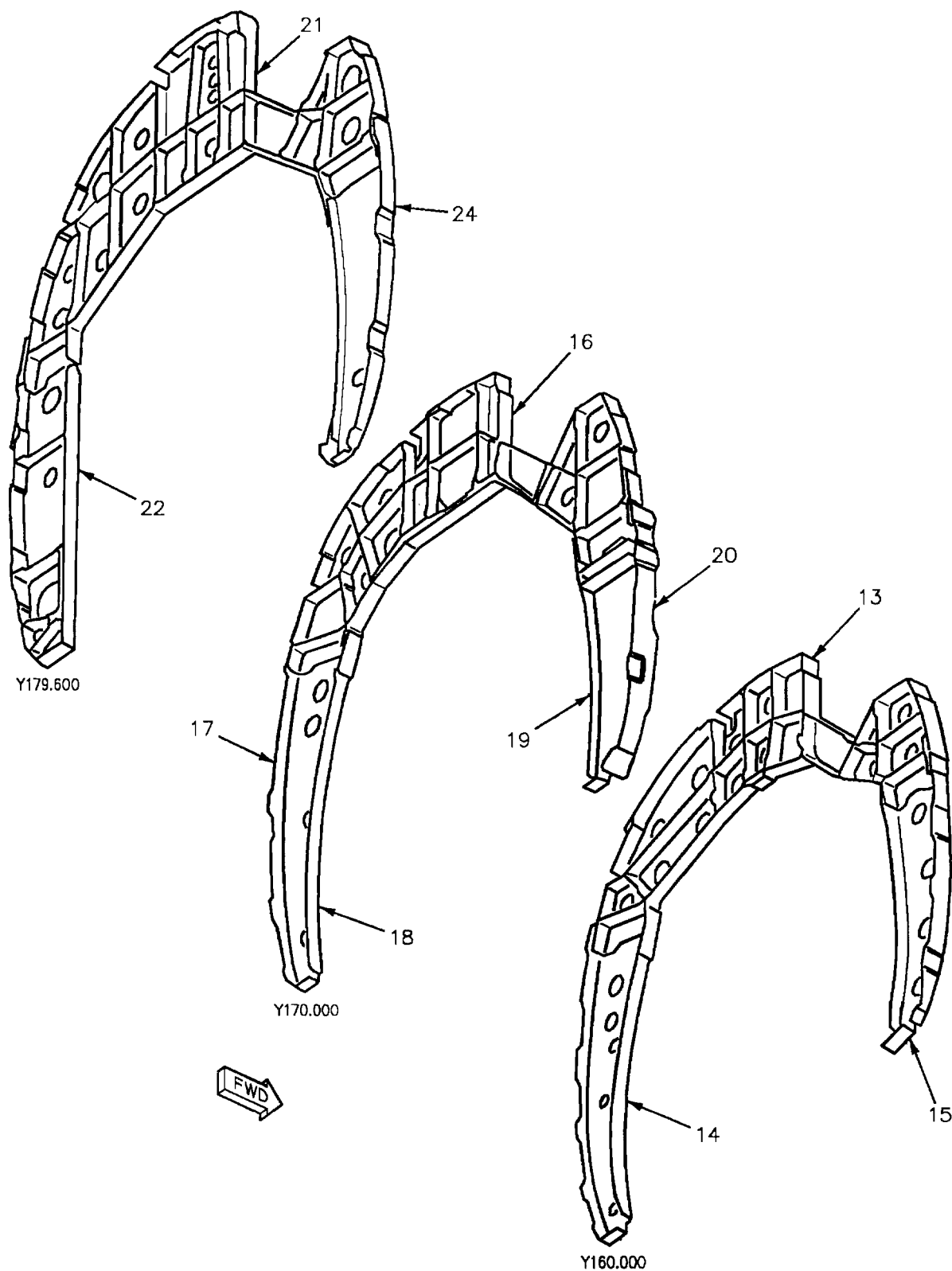


Figure 1. Material Index (Sheet 4)

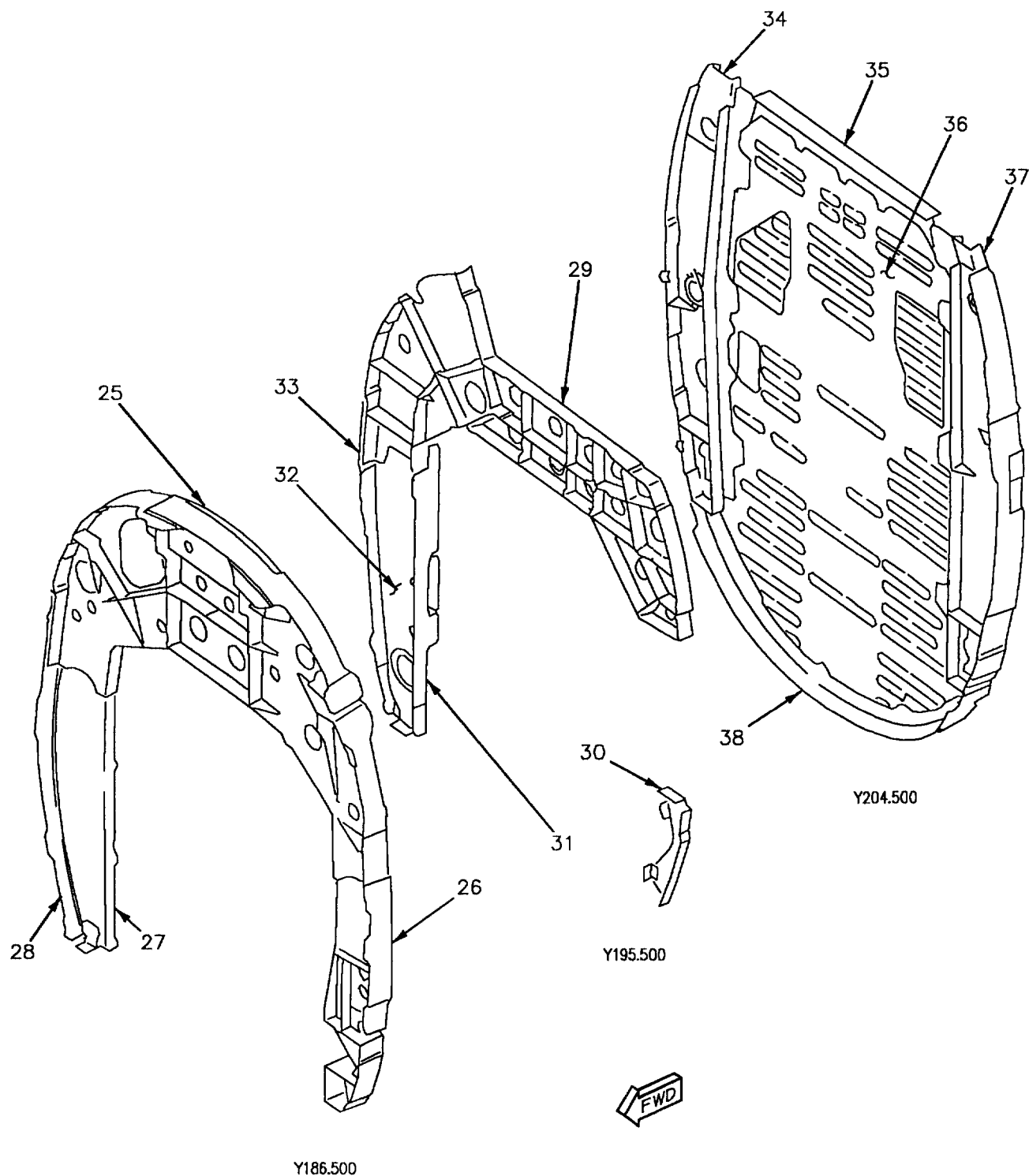


Figure 1. Material Index (Sheet 5)

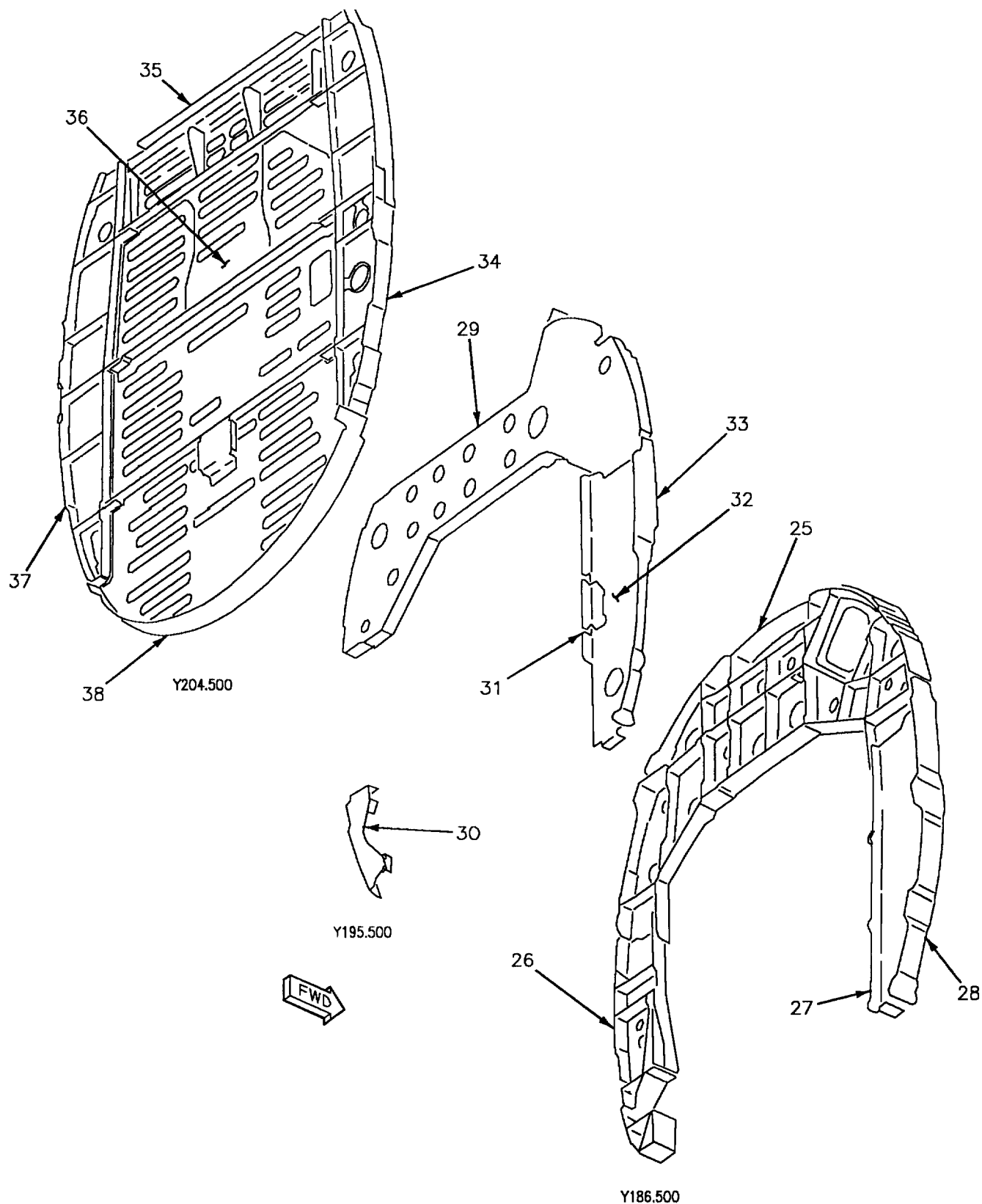


Figure 1. Material Index (Sheet 6)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
1	<div>37</div> <div>42</div> <div>46</div> <div>47</div> <div>2</div>	Former 74A313122-2009 74A313122-2015 74A313122-2023 74A313122-2019 74A313122-2007	1.50 Plate	7075-T7351 Al Aly
2	<div>20</div> <div>21</div>	Tee 74A313123-2041, -2049 74A313123-2075, -2073	1MA160D01-10204 Extr	7075-T76 Al Aly
3	<div>3</div> <div>4</div>	Web 74A313123-2063, -2057 74A313123-2067, -2069	0.063 Sheet	7076-T6 Alclad
4	<div>44</div> <div>46</div> <div>47</div> <div>2</div>	Former 74A313114-2005 74A313114-2015 74A313114-2011 74A313114-2003	1.50 Plate	7075-T7351 Al Aly
5	<div>20</div> <div>21</div>	Tee 74A313115-2023, -2024 74A313115-2045, -2046	1MA160D01-10204 Extr	7075-T76 Al Aly
6	<div>3</div> <div>14</div> <div>15</div> <div>36</div>	Former 74A313115-2037, -2038 74A313115-9005, -9006 74A313115-9005, -9008 74A313115-2043, -2044	0.063 Sheet	7075-T6 Alclad
7	<div>3</div> <div>39</div> <div>40</div>	Former 74A313104-2015 74A313104-2019 74A313104-2021	2.50 Plate	7075-T7351 Al Aly
8		Splice 74A313109-2003	2.00 Plate	6Al-4V Ti Anl
9		Retainer 74A313001-2007	0.020 Sheet	6061-T6 Al Aly
10		Seal 74A313001-2005	11M973-1	Silicone Rubber
11	<div>41</div> <div>40</div>	Former 74A313105-2017 74A313105-2019	2.50 Plate	7075-T7351 Al Aly

Figure 1. Material Index (Sheet 7)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
12	<div>41</div> <div>40</div>	Splice 74A313117-2007 74A313117-2009	2.00 Plate	7075-T7351 Al Aly
13	<div>5</div> <div>6</div> <div>38</div> <div>43</div> <div>7</div> <div>45</div> <div>8</div>	Former 74A313130-2019 74A313130-2025 74A313130-2029 74A313130-2035 74A313130-2015 74A313130-2021 74A313130-2031	1.50 Plate	7075-T7351 Al Aly
14	<div>5</div> <div>16</div> <div>17</div> <div>22</div> <div>7</div> <div>23</div> <div>24</div>	Former 74A313131-2035 74A313131-9021 74A313131-9015 74A313131-2039 74A313131-2019 74A313131-9013 74A313131-2037	0.063 Sheet	7075-T6 Alclad
15		Former 74A313131-2033	0.063 Sheet	7075-T6 Alclad
16	<div>5</div> <div>25</div> <div>42</div> <div>54</div> <div>56</div> <div>7</div> <div>26</div> <div>27</div> <div>55</div>	Former 74A313088-2019 74A313088-9009 74A313088-2023 74A313088-2027 74A313088-2029 74A313088-2015 74A313088-9007 74A313088-2021 74A313088-2025	Forging	7075-T7352 Al Aly
17		Tee 74A313136-2021	1MA160D01-10161 Extr	7075-T76 Al Aly
18	<div>28</div> <div>29</div> <div>35</div> <div>53</div> <div>60</div> <div>30</div> <div>31</div> <div>61</div>	Web 74A313136-2039 74A313136-2045 74A313136-9017 74A313136-9021 74A313136-2063 74A313136-2037 74A313136-2043 74A313136-9019	0.063 Sheet	7075-T6 Alclad

Figure 1. Material Index (Sheet 8)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
19		Web 74A313136-2033	0.063 Sheet	7075-T6 Alclad
20		Tee 74A313136-2025	1MA160D01-10161 Extr	7075-T76 Al Aly
21	<div>18</div> <div>19</div> <div>57</div>	Former 74A313118-2003 74A313118-2005 74A313118-2007	2.75 Plate	7075-T7351 Al Aly
22	<div>48</div> <div>60</div> <div>61</div>	Former 74A313141-2009 74A313141-2011 74A313141-2013	1.750 Plate	7075-T7351 Al Aly
23		Former 74A313125-2003	Pressing	7075-T73 Al Aly
24	<div>50</div> <div>51</div>	Former 74A313137-2015 74A313137-2021	0.063 Sheet	7075-T6 Alclad
25	<div>1</div> <div>2</div>	Former 74A313133-2037 74A313133-2039	Forging	7075-T7352 Al Aly
26	<div>20</div> <div>21</div>	Former 74A313140-2019 74A313140-2023	3.50 Plate	7075-T7351 Al Aly
27		Web 74A313134-2033	0.063 Sheet	7075-T6 Alclad
28		Cap 74A313134-2027	1MA160D01-10192 Extr	7075-T76 Al Aly
29	<div>7</div> <div>45</div> <div>9</div> <div>10</div> <div>50</div> <div>51</div>	Former 74A313116-9003 74A313116-2019 74A313116-9001 74A313116-2017 74A313116-2021 74A313116-2023	1.50 Plate	7075-T7351 Al Aly

Figure 1. Material Index (Sheet 9)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
30		Former 74A313119-2013	0.063 Sheet	7075-T6 Alclad
31		Tee 74A313119-2021	1MA160D06-10273 Extr	7075-T76511 Al Aly
32		Web 74A313119-2025	0.063 Sheet	7075-T6 Alclad
33		Tee 74A313119-2023	1MA160D01-10443 Extr	7075-T76 Al Aly
34		Former 74A313091-2007	2.50 Plate	7075-T7351 Al Aly
35		Cap 74A313089-2005	1MA10395D06 Extr	7075-T76511 Al Aly
36		Web 74A313090-1011	0.063 Sheet	7075-T6 Alclad
37	<div>11</div> <div>12</div> <div>13</div> <div>32</div> <div>33</div> <div>34</div> <div>52</div> <div>49</div>	Former 74A313092-9019 74A313092-9023 74A313092-2021 74A313092-2025 74A313092-2027 74A313092-2031 74A313092-2035 74A313092-2039	2.50 Plate	7075-T7351 Al Aly
38		Cap 74A313056-2011	1MA160D01-10464 Extr	7075-T7351 Al Aly

LEGEND

- 1

 F/A-18A.
- 2

 F/A-18B.
- 3

 161353 THRU 161528.
- 4

 161702 AND UP.
- 5

 F/A-18A 161353 THRU 161528.
- 6

 F/A-18A 161702 THRU 161741.
- 7

 F/A-18B 161354 THRU 161360.
- 8

 F/A-18B 162402 AND UP.
- 9

 F/A-18A 161353 THRU 161519
- 10

 F/A-18A 161520 THRU 161987.
- 11

 161353 THRU 161359.
- 12

 161360 THRU 161365.
- 13

 161366 THRU 161528.

Figure 1. Material Index (Sheet 10)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
14		161702 THRU 161724.		
15		161725 THRU 161929.		
16		F/A-18A 161702 THRU 161715.		
17		F/A-18A 161716 THRU 161736.		
18		161353 THRU 161987.		
19		162394 THRU 162909.		
20		161353 THRU 161736.		
21		161737 AND UP.		
22		F/A-18A 161737 AND UP.		
23		F/A-18B 161704 THRU 161924.		
24		F/A-18B 161932 AND UP.		
25		F/A-18A 161702 THRU 161761.		
26		F/A-18B 161704 THRU 161746.		
27		F/A-18B 161924 THRU 161947.		
28		F/A-18A 161353 THRU 161528, 161737 THRU 161987, 162396, 162398, 162400 162403, 162405, 162406, 162409, 162411, 162414, 162415, 162418, 162420, 162422, 162424 162426, 162428, 162430, 162432, 162434, 162436, 162438, 162440, 162442, 162443, 162445, 162447, 162449 THRU 162981.		
29		F/A-18A 161702 THRU 161736.		
30		F/A-18B 161354 THRU 161360 AND 161740 THRU 162885.		
31		F/A-18B 161704 THRU 161733.		
32		161702 THRU 161736.		
33		161737 THRU 161757.		
34		161758 THRU 161987.		
35		F/A-18A 162394, 162395, 162397, 162399, 162401, 162404, 162407, 162410, 162412, 162416, 162417, 162421, 162423, 162425, 162429, 162431, 162433, 162435, 162437, 162439, 162441, 162444, 162446 AND 162448.		
36		161930 AND UP.		
37		F/A-18A 161353 THRU 161761		
38		F/A-18A 161742 THRU 161987.		
39		161702 THRU 161965		
40		161966 AND UP.		
41		161353 THRU 161965.		
42		F/A-18A 161925 THRU 161987.		
43		F/A-18A 162394 AND UP.		
44		F/A-18A 161353 THRU 161987.		
45		F/A-18B 161704 THRU 161947.		
46		F/A-18A 162394 THRU 162477.		
47		F/A-18A 162826 AND UP.		
48		161353 THRU 162477.		
49		162826 AND UP.		
50		F/A-18A 162394 THRU 162865 AND F/A-18B 162402 THRU 162427.		
51		F/A-18A 162866 AND UP AND F/A-18B 162836 AND UP.		
52		162394 THRU 162477.		
53		F/A-18A 162892, 162894, 162895, 162897 THRU 162900, 162902, 162903, 162905, 162907, 162909, 163093 THRU 163096 163098 THRU 163105, 163107 THRU 163111, 163113 THRU 163126.		
54		F/A-18A 162394 THRU 162909.		

Figure 1. Material Index (Sheet 11)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
55			F/A-18B 162402 THRU 162885.	
56			F/A-18A 163092 AND UP AND F/A-18B 163104 AND UP.	
57			163092 AND UP.	
58			162826 THRU 162891.	
59			162892 AND UP.	
60			F/A-18A 162893, 162896, 162901, 162904, 162906, 162908, 163092, 163097, 163106, 163112, 163127 AND UP.	
61			F/A-18B 163104 THRU 163123.	

Figure 1. Material Index (Sheet 12)

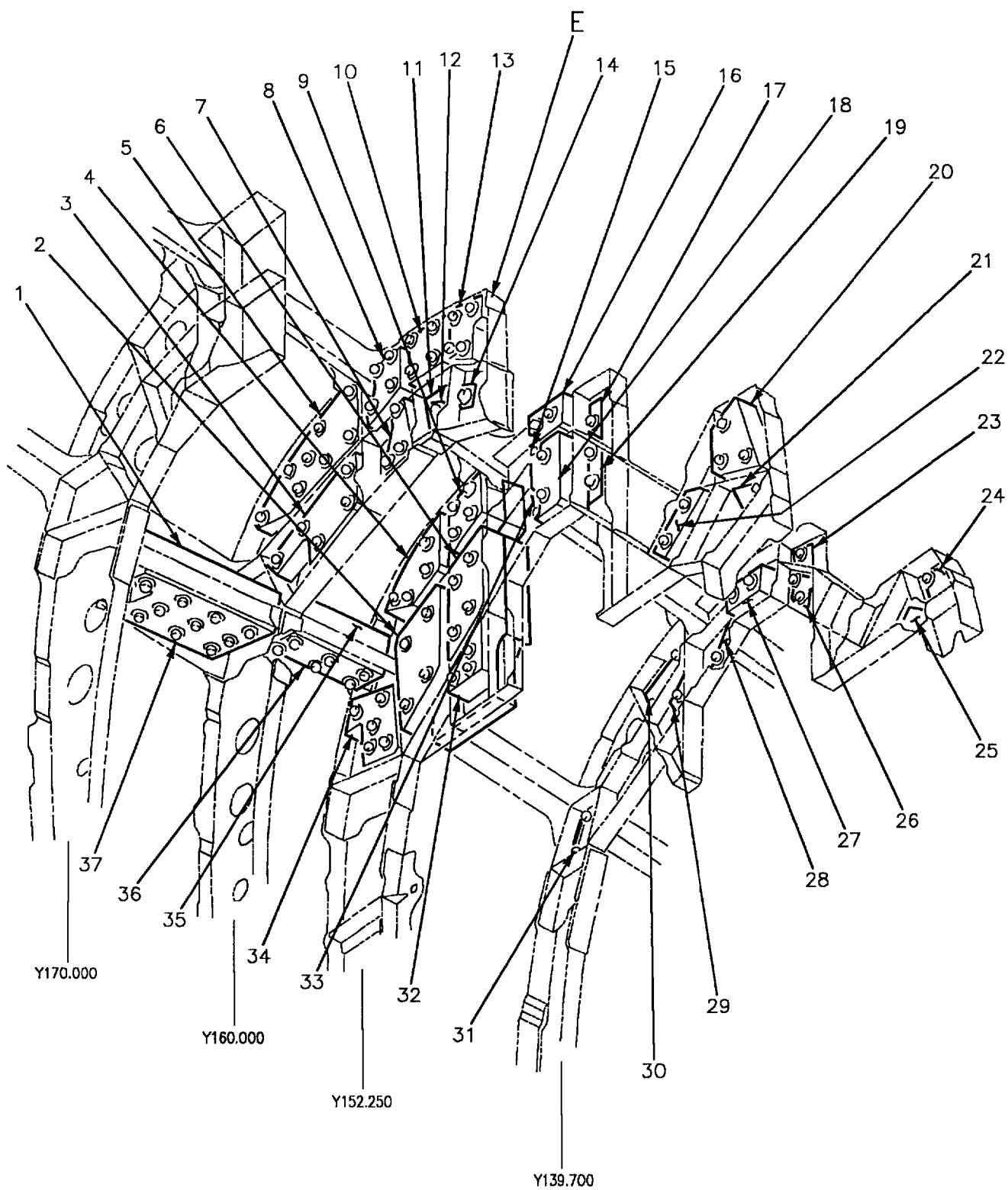


Figure 2. Ballast Installation (Sheet 1)

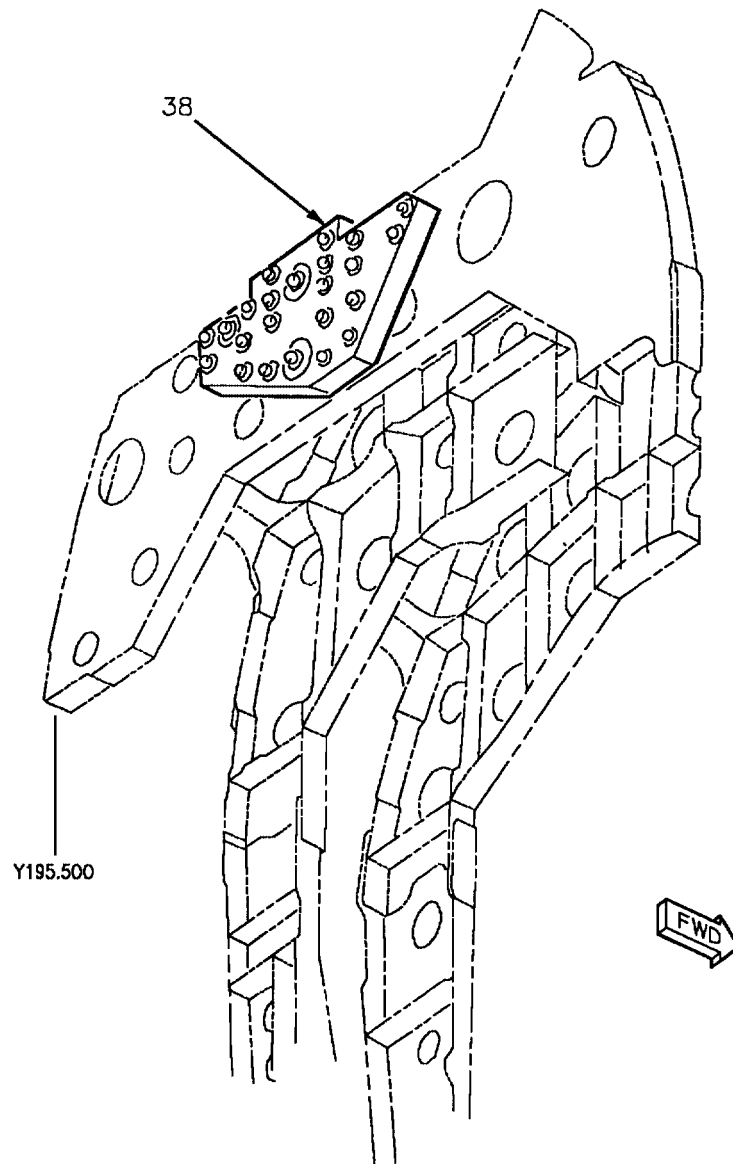


Figure 2. Ballast Installation (Sheet 2)

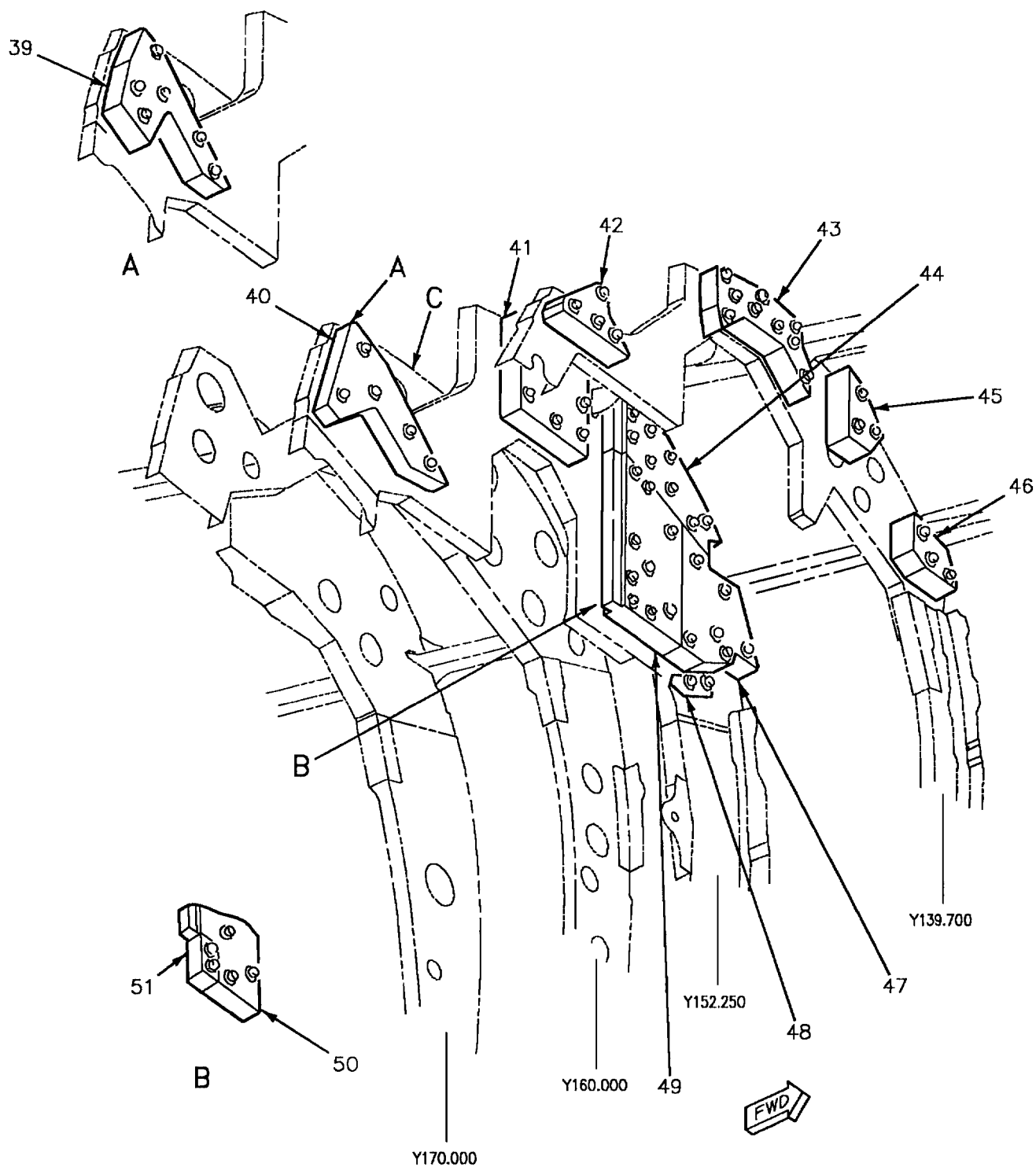


Figure 2. Ballast Installation (Sheet 3)

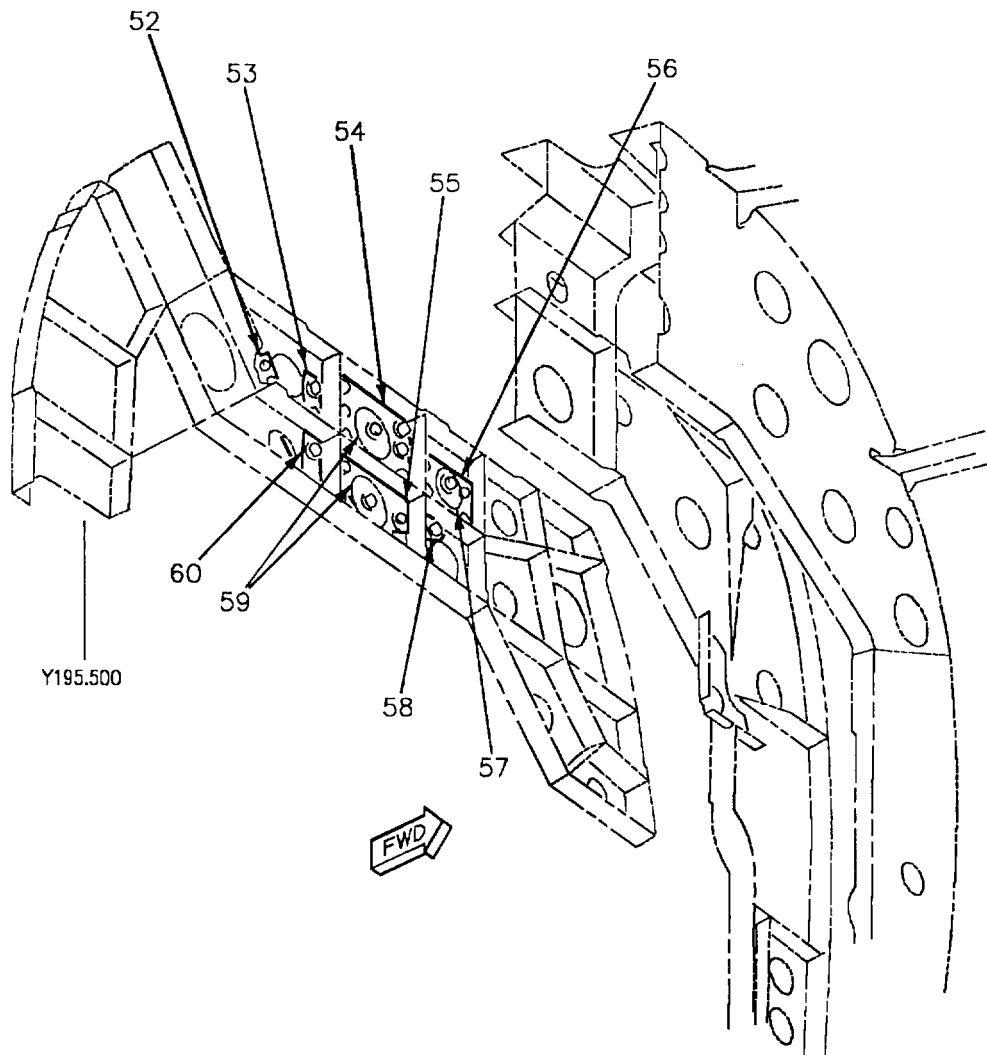


Figure 2. Ballast Installation (Sheet 4)

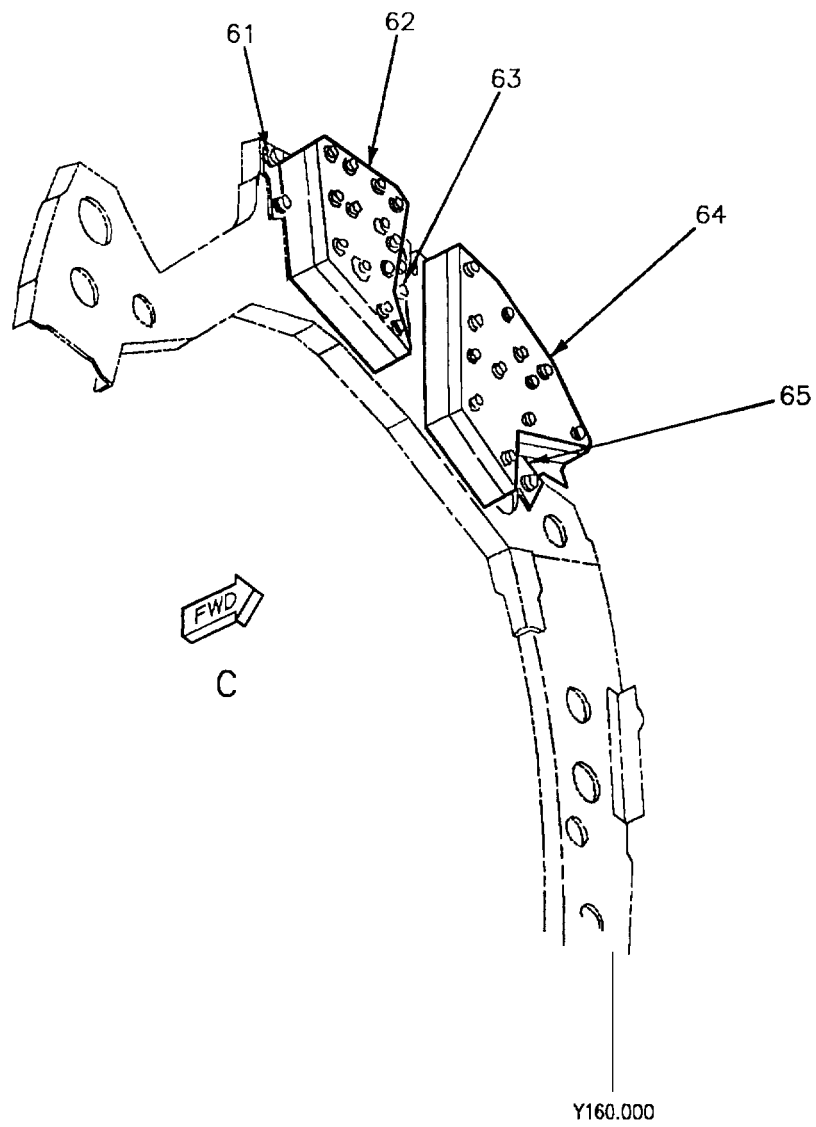


Figure 2. Ballast Installation (Sheet 5)

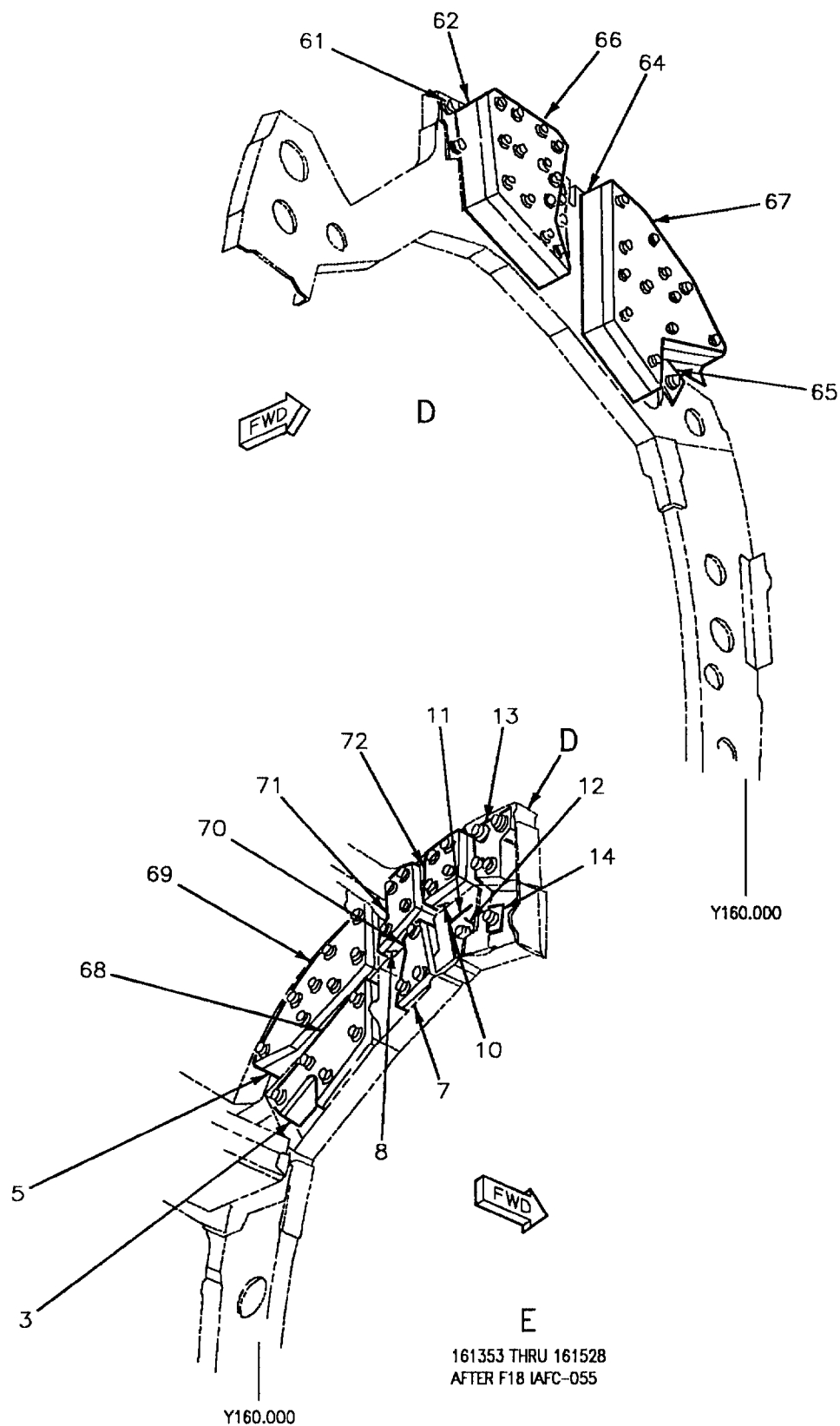


Figure 2. Ballast Installation (Sheet 6)


















Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Weight 74A315080-2135	1.12 Plate	Lead Pig
2		Weight 74A315080-2059	1.25 Plate	Lead Pig
3		Weight 74A315080-2067	1.00 Plate	Lead Pig
4		Weight 74A315080-2057	1.25 Plate	Lead Pig
5		Weight 74A315080-2069	1.00 Plate	Lead Pig
6		Weight 74A315080-2053	1.25 Plate	Lead Pig
7		Weight 74A315080-2073	1.00 Plate	Lead Pig
8		Weight 74A315080-2075	1.00 Plate	Lead Pig
9		Weight 74A315080-2055	1.25 Plate	Lead Pig
10		Weight 74A315080-2077	1.00 Plate	Lead Pig
11		Plate 74A315080-2167	0.125 Sheet	301 CRES
12		Plate 74A315080-2165	0.071 Sheet	301 CRES
13		Weight 74A315080-2079	1.00 Plate	Lead Pig
14		Plate 74A315080-2173	0.125 Sheet	301 CRES
15		Plate 74A315080-2157	0.125 Sheet	301 CRES
16		Weight 74A315080-2043	1.25 Plate	Lead Pig
17		Plate 74A315080-2159	0.125 Sheet	301 CRES

Figure 2. Ballast Installation (Sheet 7)


















Idx No.	Eft	Nomenclature and Part No.	Description	Material
18		Weight 74A315080-2045	1.25 Plate	Lead Pig
19		Plate 74A315080-2169	0.125 Sheet	301 CRES
20		Weight 74A315080-2049	1.25 Plate	Lead Pig
21		Plate 74A315080-2199	0.125 Sheet	301 CRES
22		Weight 74A315080-2047	1.25 Plate	Lead Pig
23		Plate 74A316080-2125	0.125 Sheet	301 CRES
24		Plate 74A315080-2175	0.125 Sheet	301 CRES
25		Plate 74A315080-2181	0.125 Sheet	301 CRES
26		Plate 74A315080-2123	0.125 Sheet	301 CRES
27		Weight 74A315080-2003	1.00 Plate	Lead Pig
28		Plate 74A315080-2121	0.125 Sheet	301 CRES
29		Plate 74A315080-2183	0.125 Sheet	301 CRES
30		Plate 74A315080-2177	0.125 Sheet	301 CRES
31		Plate 74A315080-2179	0.125 Sheet	301 CRES
32		Weight 74A315080-2051	1.25 Plate	Lead Pig
33		Plate 74A315080-2197	0.125 Sheet	301 CRES
34		Weight 74A315080-2061	1.00 Plate	Lead Pig

Figure 2. Ballast Installation (Sheet 8)


















Idx No.	Eft	Nomenclature and Part No.	Description	Material
35		Weight 74A315080-2131	1.43 Plate	Lead Pig
36		Weight 74A315080-2133	1.09 Plate	Lead Pig
37		Weight 74A315080-2137	1.09 Plate	Lead Pig
38		Weight 74A315080-2001	0.50 Plate	Lead Pig
39		Weight 74A315080-2041	1.25 Plate	Lead Pig
40		Plate 74A315080-2227	0.125 Sheet	301 CRES
41		Weight 74A315080-2039	1.25 Plate	Lead Pig
42		Weight 74A315080-2027	1.44 Plate	Lead Pig
43		Weight 74A315080-2025	1.44 Plate	Lead Pig
44		Weight 74A315080-2203	1.25 Plate	Lead Pig
45		Weight 74A315080-2029	1.44 Plate	Lead Pig
46		Weight 74A315080-2031	1.44 Plate	Lead Pig
47		Weight 74A315080-2205	1.25 Plate	Lead Pig
48		Plate 74A315080-2201	0.125 Sheet	301 CRES
49		Weight 74A315080-2207	1.25 Plate	Lead Pig
50		Weight 74A315080-2211	1.25 Plate	Lead Pig
51		Weight 74A315080-2209	1.25 Plate	Lead Pig

Figure 2. Ballast Installation (Sheet 9)


















Idx No.	Eft	Nomenclature and Part No.	Description	Material
52		Plate 74A315080-2007	0.125 Sheet	301 CRES
53		Weight 74A315080-2009	0.125 Sheet	301 CRES
54		Plate 74A315080-2013	0.125 Sheet	301 CRES
55		Plate 74A315080-2023	0.125 Sheet	301 CRES
56		Plate 74A315080-2017	0.125 Sheet	301 CRES
57		Plate 74A315080-2015	0.071 Sheet	301 CRES
58		Plate 74A315080-2019	0.125 Sheet	301 CRES
59		Plate 74A315080-2011	0.071 Sheet	301 CRES
60		Plate 74A315080-2035	0.125 Sheet	301 CRES
61		Plate 74A315080-2171	0.125 Sheet	301 CRES
62		Weight 74A315080-2071	1.25 Plate	Lead Pig
63		Plate 74A315080-2163	0.125 Sheet	301 CRES
64		Weight 74A315080-2065	1.13 Plate	Lead Pig
65		Plate 74A315080-2161	0.125 Sheet	301 CRES
66		Weight 74R313002-2003	0.50 Plate	Lead Pig
67		Weight 74R313002-2005	0.50 Plate	Lead Pig
68		Weight 74R313002-2007	0.50 Plate	Lead Pig

Figure 2. Ballast Installation (Sheet 10)

















Idx No.	Eft	Nomenclature and Part No.	Description	Material
69		Weight 74R313002-2001	0.50 Plate	Lead Pig
70		Weight 74R313002-2011	0.50 Plate	Lead Pig
71		Weight 74R313002-2009	0.50 Plate	Lead Pig
72		Weight 74R313002-2013	0.50 Plate	Lead Pig
<p style="text-align: center;">LEGEND</p> <p>  F/A-18A 161353 THRU 161702.  F/A-18A 161703 THRU 161761.  F/A-18A 161353 THRU 161761.  F/A-18A 161353 THRU 161628.  F/A-18A 161353 THRU 161741.  F/A-18A 161353 THRU 161936.  F/A-18A 161353 THRU 161987.  F/A-18A 161353 THRU 162414.  F/A-18A 161353 THRU 162477.  F/A-18A 162394 THRU 162414.  F/A-18A 161353 THRU 161528 AFTER F18 IAFC 055.  F/A-18A 161353 THRU 161528 BEFORE F18 AFC 49, AND F/A-18A 161702 THRU 161741 BEFORE F18 AFC 48. </p>				

Figure 2. Ballast Installation (Sheet 11)

ORGANIZATIONAL MAINTENANCE

STRUCTURE REPAIR

REMOVAL AND REPLACEMENT OF BALLAST FOR ALR-67
COUNTERMEASURES WARNING AND CONTROL SYSTEM

EFFECTIVITY: F/A-18A 161353 THRU 161936

Reference Material

Line Maintenance Access Doors	A1-F18AC-LMM-010
Structure Illustrated Parts Breakdown, Forward Fuselage	A1-F18AC-SRM-420
Weight, Counterbalance - Fuselage Nose Section, Instl of	FIG 038 00
Aircraft Corrosion Control	A1-F18AC-SRM-500
Priming Procedures	WP011 00
Radar System	A1-F18AC-742-300
Extension and Stowage of Radar Set AN/APG-65 and Panel Screw	
Assembly Repair Radar System	WP003 00

Alphabetical Index

Subject	Page No.
Removal	1
Replacement	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

None

1. **REMOVAL.** See figure 1.

a. Open radome (A1-F18AC-LMM-010).

b. Extend radar set (A1-F18AC-742-300,
WP003 00).

c. Open Door 3 (A1-F18AC-LMM-010).

d. Remove four ballasts. For fasteners (A1-F18AC-SRM-420, FIG038 00).

e. If the finish around fastener holes is damaged,
apply two coats epoxy primer (A1-F18AC-SRM-500,
WP011 00).

f. Close door 3 (A1-F18AC-LMM-010).

g. Stow radar set (A1-F18AC-742-300, WP003
00).

h. Close radome (A1-F18AC-LMM-010).

2. **REPLACEMENT.** See figure 1.

a. Open radome (A1-F18AC-LMM-010).

b. Extend radar set (A1-F18AC-742-300, WP003 00).

c. Open door 3 (A1-F18AC-LMM-010).

d. Replace four ballasts. For fasteners (A1-F18AC-SRM-420, FIG038 00).

e. Close Door 3 (A1-F18AC-LMM-010).

f. Stow radar set (A1-F18AC-742-300, WP003 00).

g. Close radome (A1-F18AC-LMM-010).

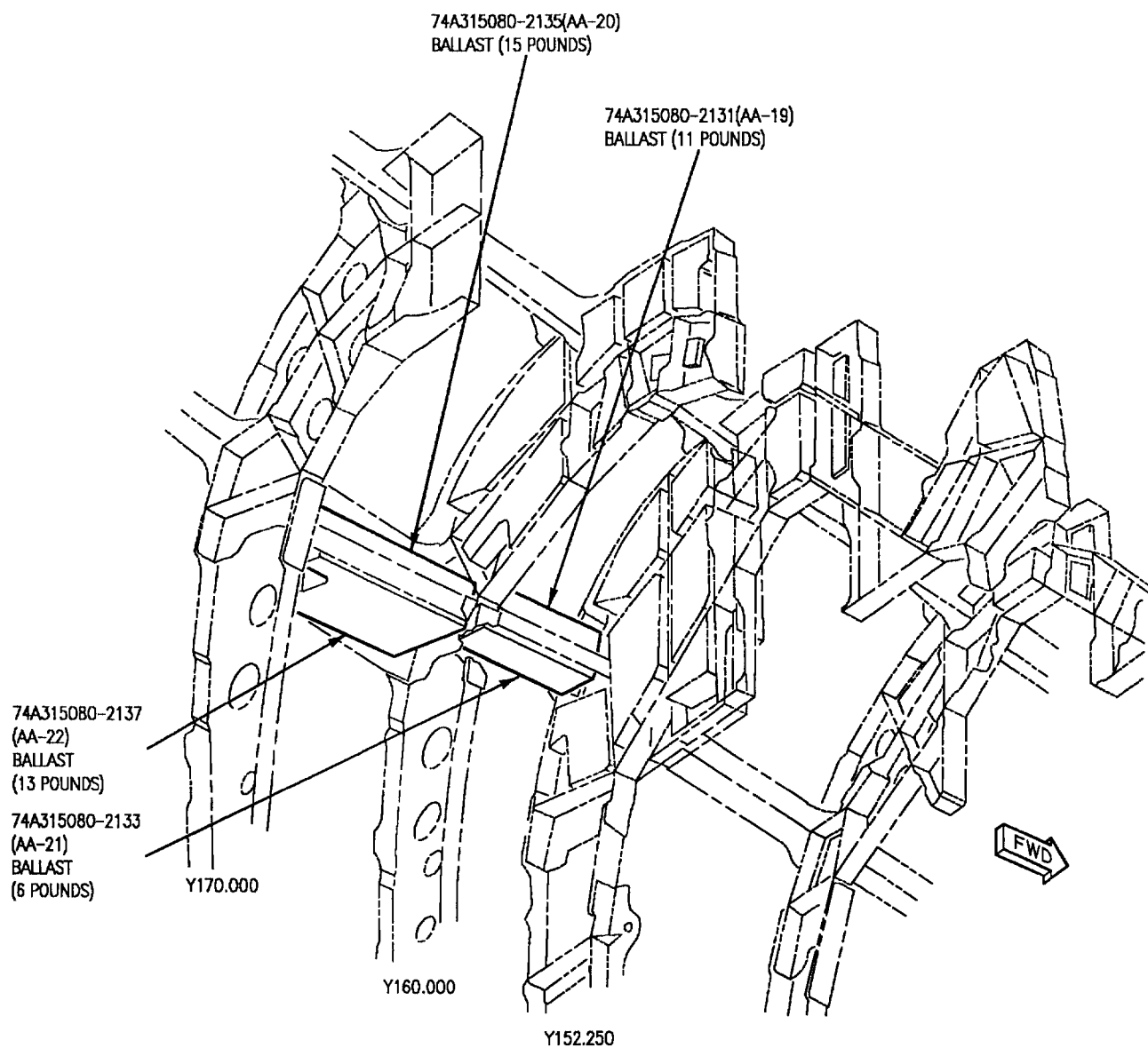


Figure 1. Ballast Removal and Replacement

ORGANIZATIONAL MAINTENANCE

STRUCTURE REPAIR

NOSE BARREL LONGERONS AND STRINGERS

Reference Material

Aircraft Corrosion Control	A1-F18AC-SRM-500
Nose Barrel Finish System and Markings	WP018 00
Aircraft Weapons Systems Cleaning and Corrosion Control	NAVAIR 01-1A-509
Structure Repair, General Information	A1-F18AC-SRM-200
Introduction	WP002 00
Adhesive, Cement, and Sealant; Preparation and Application	WP011 00
Structure Repair, Typical Repairs	A1-F18AC-SRM-250
Blending	WP038 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Nondestructive Inspection	A1-F18AC-SRM-300
Penetrant Method	WP004 00
General Manual for Structure Repair	NAVAIR 01-1A-1
Passivation Treatments for Corrosion-Resisting Steel	QQ-P-35

Alphabetical Index

Subject	Page No.
Damage Evaluation	1
Negligible Damage	1
Repairable Damage	2
Repairs	2
Elongated Longerons Fastener Holes Repair, For Door 3	2

Record of Applicable Technical Directives

None

1. **DAMAGE EVALUATION.** See figures 1 and 2.

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The types of materials used are shown on figure 1. Repair zones are shown on figure 2. Allowable damage limits within repair zones are listed in tables 1 and 2. Damage not listed or exceeding the following limits require depot engineering disposition.

3. **NEGLECTIBLE DAMAGE.** Negligible damage is damage that may be allowed to exist as is. However,

preventive maintenance, for temporary corrosion arrestment, should be done to scratches (NAVAIR 01-1A-509). The types and limits of damage are listed below and in table 1. The figure and index numbers in table 1 coincide with the figure and index numbers in the material index.

a. Scratches are not allowed within one diameter from the edge of any hole.

b. Smooth dents only, effective diameter at least 20 times the depth.

4. **REPAIRABLE DAMAGE.** The types and limits of damage are listed below and in table 2. The figure and index numbers in table 2 coincide with figure and index numbers in the material index, figure 1.

NOTE

The limits in table 2 apply after blending the damage.

a. Scratches.

(1) Any scratches within one diameter of any hole must be blended out. Minimum blend out is one diameter from edge of any hole.

(2) Scratches to be blended out with diameter, or width, at surface at least 20 times the depth.

b. Nicks, gouges, and corrosion to be blended out with diameter, or width, at surface at least 20 times the depth.

5. REPAIRS.

6. Types of repairs are temporary, one-time flight, permanent, critical area, alternate and typical. Repair type definitions are in structure repair terms (A1-F18AC-SRM-200, WP002 00). Blend scratches, nicks, gouges or corrosion (A1-F18AC-SRM-250, WP038 00). If after blending, the damage limits of table 2 are exceeded, repair will require a depot engineering disposition. Re-finish blended areas (A1-F18AC-SRM-500, WP018 00). Repair to elongated fastener holes in longeron for door 3 can be repaired per paragraph 7. All other repairs require depot engineering disposition.

7. **ELONGATED LONGERON FASTENER HOLES REPAIR, FOR DOOR 3.** See figure 3. Holes with elongated diameters up to 0.425 inch can be repaired with repair bushings. Elongated hole diameters more than 0.425 inch require depot engineering disposition.

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-I-735	Isopropyl Alcohol

Materials Required (Continued)

Specification or Part Number	Nomenclature
MIL-S-81733, TYPE 1-1/2	Sealing Compound
BRFS4AD16	Rivet (As Required)
Fabricate	Repair Bushing

a. Determine if repair to elongated hole is required per substeps below:

NOTE

Nominal hole diameter in longeron is 0.385 +0.008 -0.000 inch.

(1) Critical fastener holes.

(a) One hole elongated to 0.393 inch or less does not require repair if adjacent holes are nominal or have been repaired.

(b) Holes elongated more than 0.393 inch up to 0.425 inch must be repaired.

(2) Remaining fastener holes.

(a) Up to two consecutive holes elongated to 0.400 inch or less do not require repair if hole on each side of elongated holes are nominal.

(b) Holes elongated 0.400 inch or less that alternate with nominal holes do not require repair.

(c) Holes elongated more than 0.400 inch up to 0.425 inch must be repaired.

b. Remove fastener receptacle from structure at elongated hole.



Be sure to maintain existing hole centerline when reaming to prevent fastener hole misalignment.

c. Ream hole to clean up elongated condition. Maximum reaming diameter 0.465 inch with 63 RHR surface finish.

d. Countersink upper edge of hole 0.020 \pm 0.005 x 45° with 125 RHR surface finish.

e. Deburr hole and touch up finish system (A1-F18AC-SRM-500, WP018 00).

f. Clean area of foreign materials.

g. Fabricate repair bushing from 17-4 PH CRES, IVD coating, per substeps below, and detail B.

(1) Outer diameter to be 0.000 to 0.001 inch larger than reamed hole diameter.

(2) Countersink flange shall be 0.020 \pm 0.005 x 45°.

(3) Thickness to be same as longeron thickness.

(4) Minimum wall thickness is 0.020 inch.

(5) Finish outer surface 125 RHR or better.

(6) Finish inner surface 63 RHR or better.

(7) Heat treat 1015° to 1035° for 4 hours (NAVAIR 01-1A-1).

(8) Cool to room temperature.

(9) Penetrant inspect (A1-F18AC-SRM-300, WP004 00).

(10) Passivate per federal specification QQ-P-35.



Sealing Compound, MIL-S-81733, Type 1-1/2

9

h. Apply sealing compound to hole in longeron. For sealant preparation (A1-F18AC-SRM-200, WP011 00).

i. Shrink repair bushing to provide a slip fit into hole. Do not press fit.



Isopropyl Alcohol, TT-I-735

2

j. Clean excess sealing compound with cheesecloth wet with isopropyl alcohol.

k. If repair bushing protrudes above longeron surface, grind flush. Maintain minimum of 0.010 inch countersink flange on repair bushing.

l. Apply sealing compound over edges of repair bushing.

m. Install fastener receptacle on structure using BRFS4AD16 rivets.

n. Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

o. Close door 3 (A1-F18AC-LMM-010).

Table 2. Repairable Damage Limits After Blending

Fig No Idx No	Nomen/ Repair Zone	Thickness	Edge Nicks Depth	Scratch Depth	Nicks Gouges		Corrosion	
					Depth	Area	Depth	Area
Fig 1 (1)	Stringer Zone A3	All areas	0.050	0.014	0.014	15%	0.014	15%
Fig 1 (2)	Stringer Zone A3	0.070	0.050	0.014	0.014	15%	0.014	15%
Fig 1 (3)	Splice Zone B2 and Zone B3	All	0.050	0.020	0.020	5%	0.020	5%
Fig 1 (4)	Splice Zone B2 and Zone B3	All	0.050	0.020	0.020	5%	0.020	5%
Fig 1 (5)	Stringer Zone A3	0.063	0.050	0.012	0.012	15%	0.012	15%
Fig 1 (6)	Longeron Zone A2 and Zone A3	All	0.030	0.012	0.012	5%	0.012	5%
Fig 1 (7)	Longeron Zone A3 and Zone D3	All	0.050	0.014	0.014	10%	0.014	10%
Fig 1 (8)	Stringer Zone A3	0.063	0.100	0.012	0.012	10%	0.012	10%
Fig 1 (9)	Stringer Zone A3	0.063	0.050	0.012	0.012	5%	0.012	5%
Fig 1 (10)	Longeron Zone A2 and Zone B3	All	0.050	0.014	0.014	10%	0.014	10%
Fig 1 (11)	Longeron Zone A2	All	0.050	0.016	0.016	5%	0.016	5%

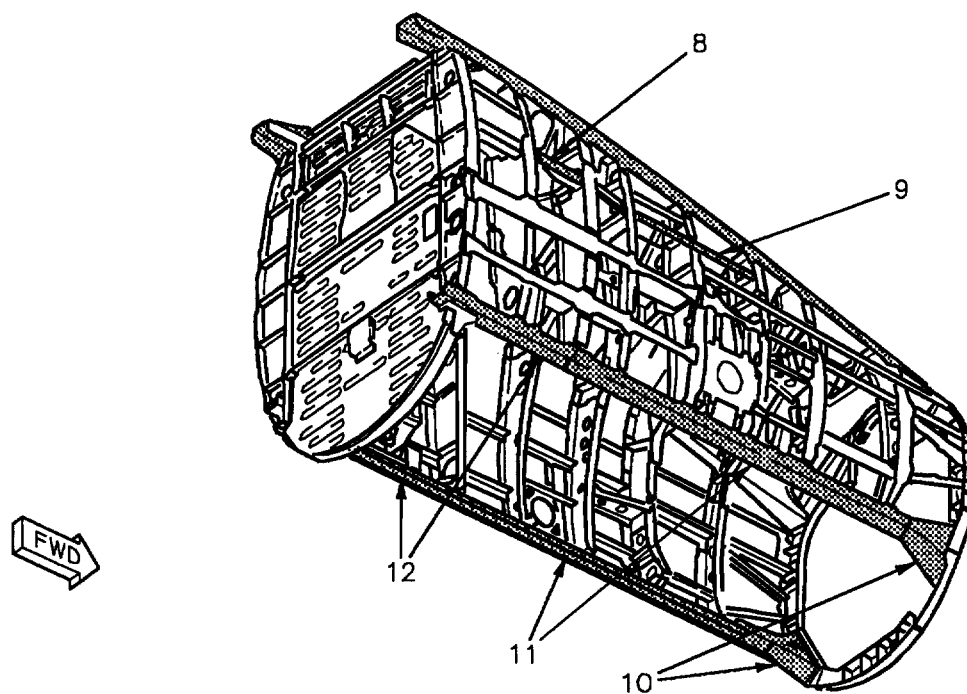
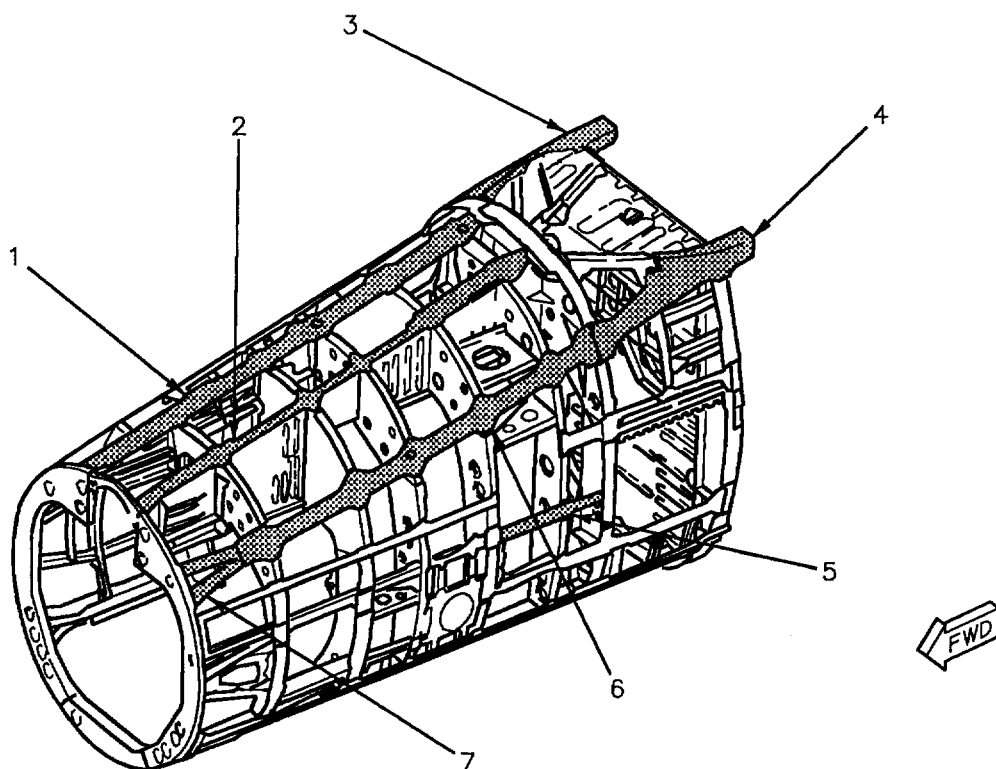


Figure 1. Material Index (Sheet 1)





















Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Stringer 74A313031-2005	1MA164D01-10029 Extr	7075-T76 Al Aly
2		Stringer 74A313062-2007	1MA164D01-10028 Extr	7075-T76 Al Aly
3		Longeron Splice 74A313085-2003	Pressing	7075-T73 Al Aly
4	 	Longeron Splice 74A313086-2003 74A313086-2005	Pressing	7075-T73 Al Aly
5	 	Stringer 74A313076-2005 74A313076-2007	1MA160D01-10215 Extr	7075-T76 Al Aly
6	 	Longeron 74A313100-2005, -2009 74A313100-2005, -2011	1MA164D01-10017 Extr	7075-T76 Al Aly
7	    	Longeron 74A313106-2003, -2006 74A313106-2009, -2006 74A313106-2009, -2010 74A313106-9003, -9004 74A313106-2013, -2014	Pressing	7075-T73 Al Aly
8		Stringer 74A313096-2013	1MA160D06-10454 Extr	7075-T76511 Al Aly
9		Stringer 74A313096-2019	1MA100D01-10298 Extr	7075-T6 Al Aly
10	 	Longeron 74A313107-2018, -2019 74A313107-2012, -2011	Pressing	7075-T73 Al Aly
11	 	Longeron 74A313101-2010, -2009 74A313101-2014, -2013	1MA10332D01 Extr	7075-T76 Al Aly
12		Longeron Splice 74A313081-2017, -2014	1MA10389D06 Extr	7075-T76511 Al Aly
<p style="text-align: center;">LEGEND</p> <p> 161353 THRU 161359.  161360 THRU 161363.  161353 THRU 161706.  161707 AND UP.  161353 THRU 161980.</p>				

Figure 1. Material Index (Sheet 2)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
6		161353 THRU 161723.		
7		161724 AND UP.		
8		161702 THRU 161736.		
9		161737 AND UP.		
10		161981 AND UP.		
11		161364 THRU 161528.		
12		161353 THRU 161528.		
13		161702 AND UP.		
14		161353 THRU 162477.		
15		162826 AND UP.		

Figure 1. Material Index (Sheet 3)

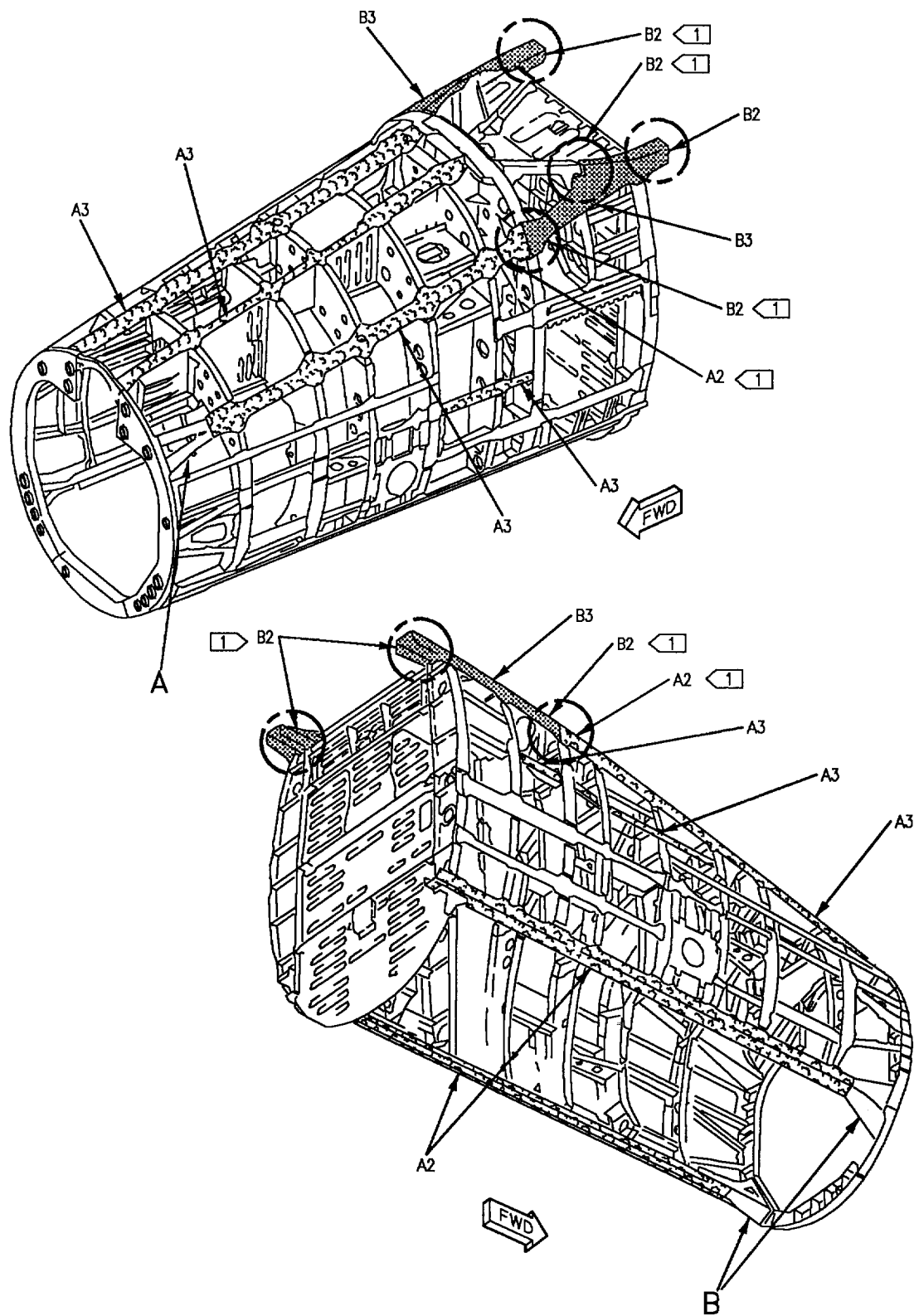


Figure 2. Repair Zones (Sheet 1)

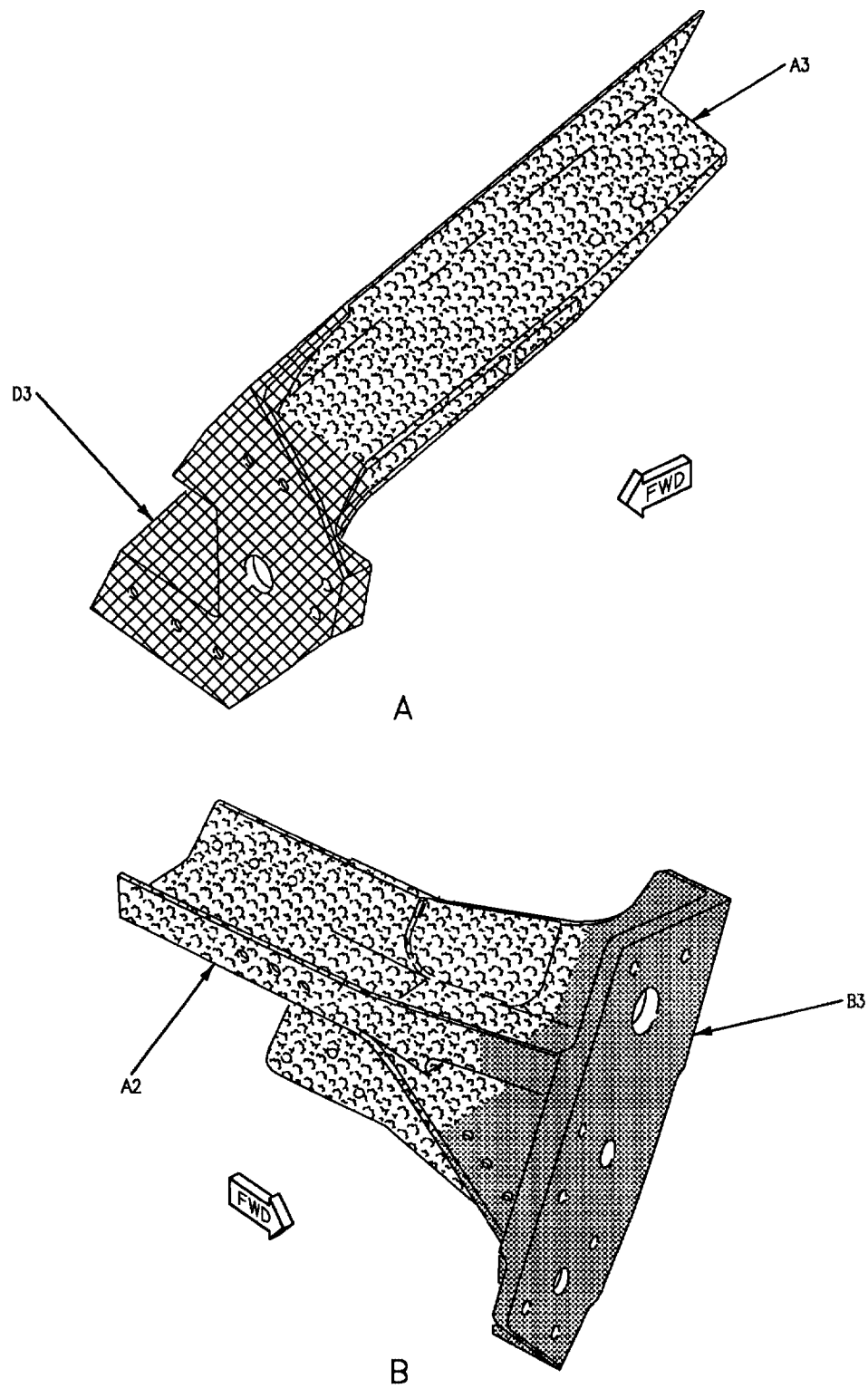


Figure 2. Repair Zones (Sheet 2)

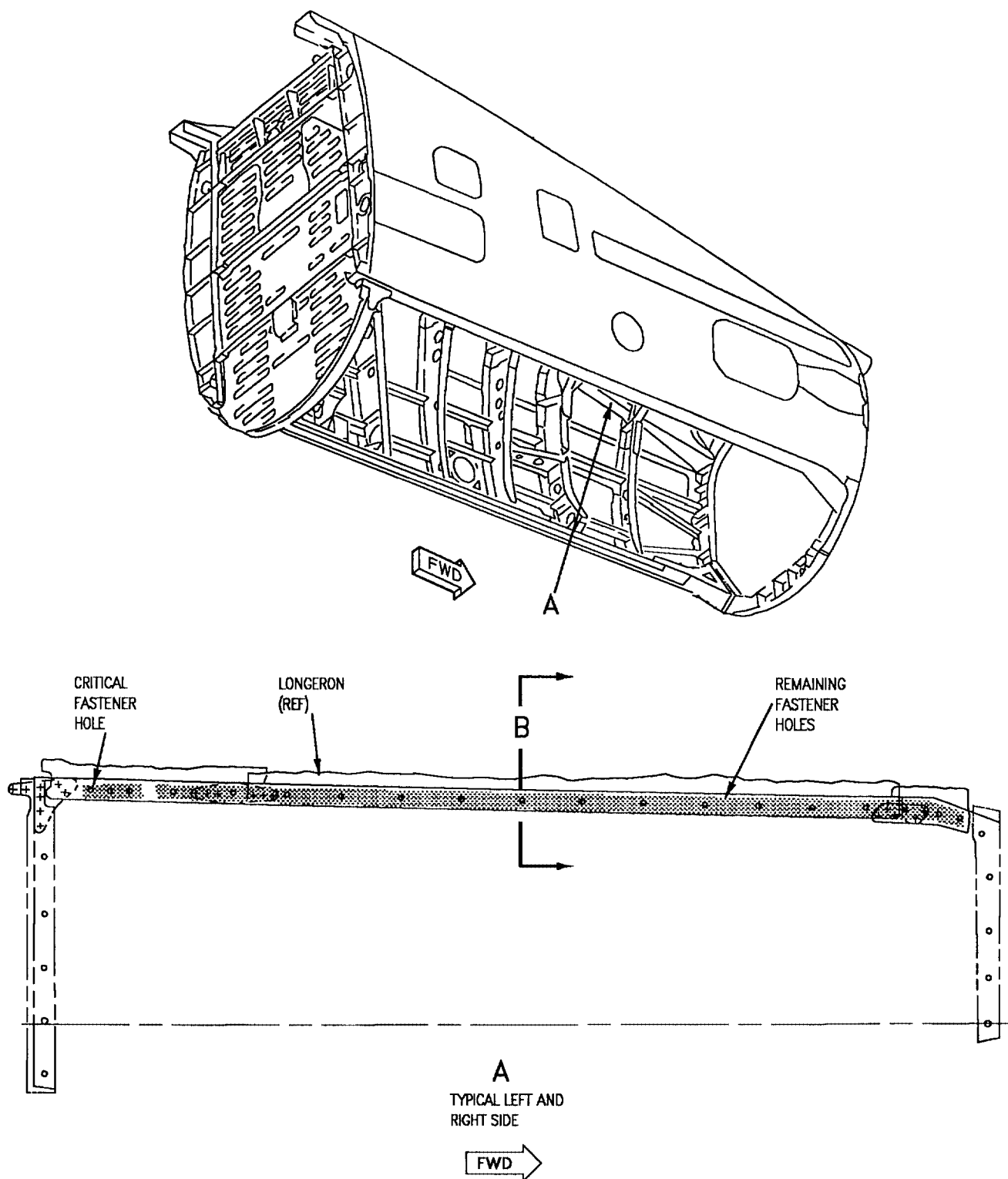


Figure 3. Longeron Fastener Hole Repair (Sheet 1)

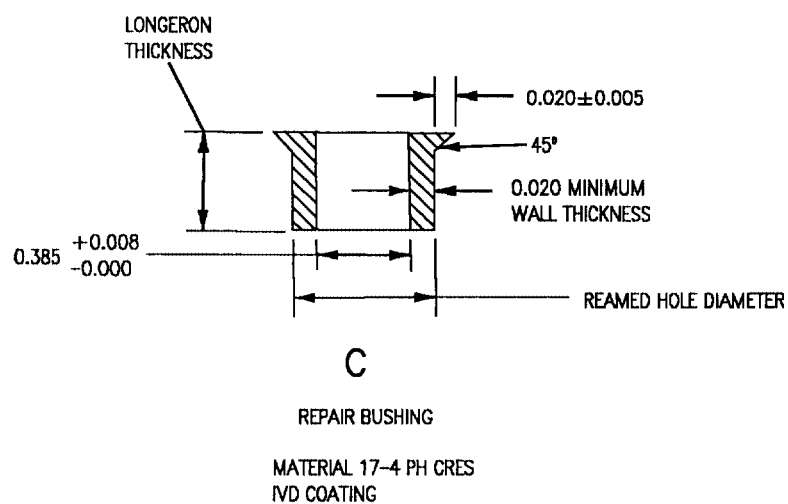
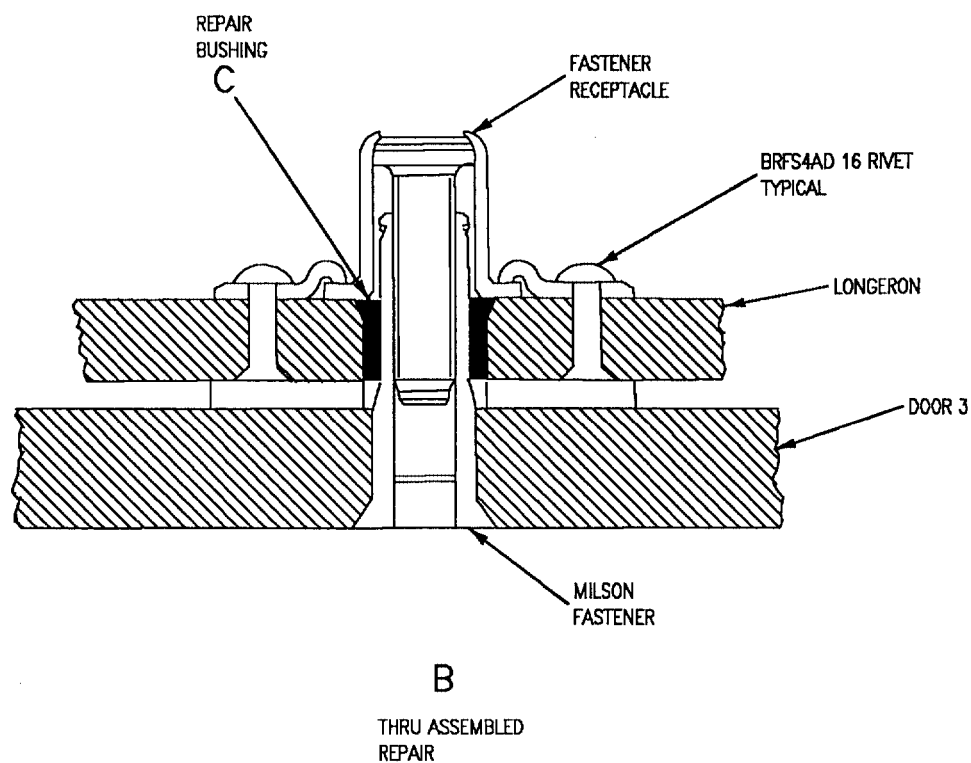


Figure 3. Longeron Fastener Hole Repair (Sheet 2)

ORGANIZATIONAL MAINTENANCE

STRUCTURE REPAIR

NOSE BARREL IFR TROUGH STRUCTURE

Reference Material

Aircraft Corrosion Control	A1-F18AC-SRM-500
Nose Barrel Finish System and Markings	WP018 00
Aircraft Weapons Systems Cleaning and Corrosion Control	NAVAIR 01-1A-509
Structure Repair, General Information	A1-F18AC-SRM-200
Introduction	WP 0200
Adhesive, Cement, and Sealant; Preparation and Application	WP011 00
Structure Repair, Typical Repair	A1-F18AC-SRM-250
Aluminum Patch Fabrication	WP006 01
Aluminum, Graphite Epoxy, or Titanium Patch Installation and Removal	WP007 00
Aluminum Sheet, Free of Structure and Land Areas	WP031 00
Aluminum and Titanium Sheet, Formed Structure	WP033 00
Aluminum Sheet Edge Repairs	WP034 00
Aluminum Sheet Repairs, Across Structure and Lands	WP036 00
Blending	WP038 00
Radar System	A1-F18AC-742-300
Electrical Equipment Rack Support (60MPA509)	WP015 00
Fuel System	A1-F18AC-460-300
Inflight Refueling Probe Retract Limit Switch	WP082 00
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

Alphabetical Index

Subject	Page No.
Damage Evaluation	2
Negligible Damage	2
Repairable Damage	2
Repairs	2
Permanent Repairs	2
Cracks	2
Dents	4
Edge	3
Holes	3
Scratches, Nicks, Gouges, or Corrosion	2
Replacement	18
Radar Rack Shims	18
Stop/Limit Switch Bracket, I.F.R. Probe	18

Record of Applicable Technical Directives

None

1. **DAMAGE EVALUATION.** See figures 1 and 2.

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The types of materials used are shown on figure 1. Repair zones are shown on figure 2. Allowable damage limits within repair zones are listed in tables 1 and 2. Damage not listed or exceeding the following limits require depot engineering disposition.

3. **NEGLIGIBLE DAMAGE.** Negligible damage is damage that may be allowed to exist as is. However, preventive maintenance, for temporary corrosion arrestment, should be done to scratches (NAVAIR 01-1A-509). The types and limits of damage are listed below and in table 1. The figure and index numbers in table 1 coincide with the figure and index numbers in the material index.

a. Scratches are not allowed within one diameter from the edge of any hole.

b. Smooth dents only, effective diameter at least 20 times the depth.

4. **REPAIRABLE DAMAGE.** The types and limits of damage are listed below and in table 2. The figure and index numbers in table 2 coincide with figure and index numbers in the material index, figure 1.

NOTE

The limits in table 2 apply after blending the damage.

a. Scratches.

(1) Any scratches within one diameter of any hole must be blended out. Minimum blend out is one diameter from edge of any hole.

(2) Scratches to be blended out with diameter, or width, at surface at least 20 times the depth.

b. Nicks, gouges, and corrosion to be blended out with diameter, or width, at surface at least 20 times the depth.

c. Cracks. All cracks must be repaired.

d. Holes.

(1) Damage in areas free of structure and lands must have edge cleanup hole at least eight repair fastener diameters from any land, internal structure or existing row of fasteners.

(2) Damage to lands, overstructure, only one repair per land.

e. Dents exceeding the limits in table 1 must be repaired.

5. REPAIRS.

6. Types of repairs are temporary, one-time flight, permanent, critical area, alternate and typical. Repair type definitions are in structure repair terms (A1-F18AC-SRM-200, WP002 00).

7. PERMANENT REPAIRS.

8. **Scratches, Nicks, Gouges, or Corrosion.** Blend scratches, nicks, gouges, or corrosion (A1-F18AC-SRM-250, WP038 00). If after blending, the damage limits of table 2 are exceeded, repair aluminum sheet as below. Refinish blended areas (A1-F18AC-SRM-500, WP018 00).

a. Scratches - make crack or edge repairs.

b. Nicks, gouges, or corrosion - make hole or edge repair.

9. Cracks.

a. In repair zones A3, repair cracks free of structure or land areas in aluminum (A1-F18AC-SRM-250, WP031 00).

(1) Rout out crack.

(2) Install lap patch for cracks.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

b. In repair zone B3, repair cracks free of structure or land areas in aluminum sheet (0.050 inch thickness or less).

(1) Completely cut out crack in the smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zone A3 repair cracks across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

(2) Make repairs.

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay, install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

d. In repair zone A3 repair cracks to aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) Install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

10. Holes.

a. In repair zone A3 repair holes free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00).

(1) Cut out damage.

(2) Install a type one flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

b. In repair zone B3, repair holes free of structure or land areas in aluminum sheet (0.050 inch thickness or less).

(1) Completely cut out damage in the smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zone A3 repair holes across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

(2) Make repairs.

(a) Damage to Bay Requiring Repair Across Lands; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay, install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

d. In repair zone A3 repair holes in aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) Install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

11. **Edge.** In repair zone A3 repair edge damage in aluminum sheet (A1-F18AC-SRM-250, WP034 00) as below:

a. Cut out damage.

b. Select and install repair patch as below:

(1) Corner Damage to Lands.

(2) Corner Damage to Lands and Bays.

(3) Edge Damage to Lands.

(4) Edge Damage to Lands and Bays.

(5) Full Width Damage to End.

c. Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

12. Dents.

a. In repair zone A3 repair dents free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00).

(1) Cut out damage.

(2) Install a type one flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

b. In repair zones B3, repair dents free of structure or land areas in aluminum sheet (0.050 inch thickness or less).

(1) Completely cut out damage in the smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zone A3 repair dents across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

(2) Make repairs.

(a) Damage to Bay Requiring Repair Across Lands; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

d. In repair zone A3, repair holes to aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) Install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

Table 1. Negligible Damage Limits








Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 1 (1)	Support Zone A3		0.002	0.002	100%		N/A
Fig 1 (2)	Tee Zone A3	0.071	0.002	0.002	100%		N/A
Fig 1 (3)	Tee Zone A3	0.071	0.002	0.002	100%		N/A
Fig 1 (4)	Splice Zone A3	0.080	0.002	0.002	100%		N/A
Fig 1 (5)	Web Zone A3	0.080	0.002	0.002	100%	 0.040	N/A
		0.029	0.002	0.002	100%	 0.015	N/A

Table 1. Negligible Damage Limits (Continued)
























Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 1 (6)	Web Zone A3	0.080 0.037	0.002 0.002	0.002 0.002	100% 100%	 0.040  0.019	N/A N/A
Fig 1 (7)	Web Zone A3 Zone B3	0.080 0.037 0.080	0.002 0.002 0.0006	0.002 0.002 0.0006	100% 100% 100%	 0.040  0.019  0.019	N/A N/A N/A
Fig 1 (8)	Web Zone A3 Zone B3	0.080 0.032 0.080 0.041	0.002 0.002 0.0006 0.0006	0.002 0.002 0.0006 0.0006	100% 100% 100% 100%	 0.040  0.016  0.016  0.020	N/A N/A N/A N/A
Fig 1 (9)	Angle Zone B3	0.080	0.0006	0.0006	100%	 0.019	N/A
Fig 1 (10)	Angle Zone A3	0.071	0.002	0.002	100%	 0.019	N/A
Fig 1 (11)	Splice Zone A3	0.080	0.002	0.002	100%	 0.019	N/A
Fig 1 (12)	Web Zone A3 Zone B3	0.080 0.041 0.080	0.002 0.002 0.0006	0.002 0.002 0.006	100% 100% 100%	0.040 0.020  0.019	N/A N/A N/A
Fig 1 (13)	Angle Zone A3	0.050	0.002	0.002	100%	 0.019	N/A
Fig 1 (14)	Bracket Zone A3	0.050	0.002	0.002	100%	 0.019	N/A
Fig 1 (15)	Angle Zone B3	0.080	0.0006	0.0006	100%	 0.019	N/A
Fig 1 (16)	Angle Zone A3	0.050	0.002	0.002	100%	 0.019	N/A
Fig 1 (17)	Web Zone A3	0.080 0.029	0.002 0.002	0.002 0.002	100% 100%	 0.040  0.015	N/A N/A
Fig 1 (21)	Channel Zone B3 Zone C3	0.070 0.220	0.006 0.006	0.0006 0.0006	100% 100%	 0.019  0.019	N/A N/A
Fig 1 (22)	Angle Zone B3 Zone C3	0.070 0.250	0.0006 0.0006	0.0006 0.0006	100% 100%	 0.019  0.019	N/A N/A

Table 1. Negligible Damage Limits (Continued)





















Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 1 (24)	Web Zone A3	0.090	0.002	0.002	100%	0.045	N/A
		0.115	0.002	0.002	100%	 0.040	N/A
	Zone B3	0.047	0.0006	0.0006	100%	0.023	N/A
		0.115	0.0006	0.0006	100%	 0.018	N/A
		0.125	0.0006	0.0006	100%	 0.018	N/A
Fig 1 (25)	Floor Zone A3	0.080	0.002	0.002	100%	 0.040	N/A
	Zone B3	0.040	0.002	0.0006	100%	 0.070	N/A
Fig 1 (26)	Web Zone A3	0.080	0.002	0.002	100%	0.040	N/A
	Zone B3	0.080	0.0006	0.0006	100%	0.040	N/A
		0.037	0.0006	0.0006	100%	0.018	N/A
Fig 1 (27)	Support Zone A3		0.002	0.002	100%		N/A
Fig 1 (28)	Floor Zone A3	0.080	0.002	0.002	100%	 0.040	N/A
		0.037	0.002	0.002	100%	 0.018	N/A
	Zone B3	0.080	0.006	0.0006	100%		N/A
Fig 1 (29)	Support Zone A3		0.002	0.002	100%		N/A
Fig 1 (30)	Support Zone A3		0.002	0.002	100%		N/A
Fig 1 (31)	Support Zone A3		0.002	0.002	100%		N/A
NOTE  Webs only, ribs require engineering disposition.  Dents not allowed in vicinity of bend radii.  Dents not allowed in vicinity of bend radii. Fill low spots with sealer to prevent fuel puddles.  None allowed.							

Table 2. Repairable Damage Limits After Blending







Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Corrosion	
				Depth	Area	Depth	Area
Fig 1 (1)	Support Zone A3		0.014	0.014	10%	0.014	10%
Fig 1 (2)	Tee Zone A3	0.071	0.014	0.014	15%	0.014	15%

Table 2. Repairable Damage Limits After Blending (Continued)

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Corrosion	
				Depth	Area	Depth	Area
Fig 1 (3)	Tee Zone A3	0.071	0.014	0.014	15%	0.014	15%
Fig 1 (4)	Splice Zone A3	0.080	0.016	0.016	10%	0.016	10%
Fig 1 (5)	Web Zone A3	0.080	0.016	0.016	15%	0.016	15%
		0.029	0.006	0.006	10%	0.006	10%
Fig 1 (6)	Web Zone A3	0.080	0.016	0.016	15%	0.016	15%
		0.037	0.007	0.007	10%	0.007	10%
Fig 1 (7)	Web Zone A3 Zone B3	0.080	0.016	0.016	15%	0.016	15%
		0.037	0.007	0.007	10%	0.007	10%
		0.080	0.016	0.016	10%	0.016	10%
Fig 1 (8)	Web Zone A3 Zone B3	0.080	0.016	0.016	15%	0.016	15%
		0.032	0.006	0.006	10%	0.006	10%
		0.080	0.016	0.016	10%	0.016	10%
		0.041	0.008	0.008	10%	0.008	10%
Fig 1 (9)	Angle Zone B3	0.080	0.016	0.016	10%	0.016	10%
Fig 1 (10)	Angle Zone A3	0.071	0.014	0.014	15%	0.014	15%
Fig 1 (11)	Splice Zone A3	0.080	0.016	0.016	10%	0.016	10%
Fig 1 (12)	Web Zone A3 Zone B3	0.080	0.016	0.016	15%	0.016	15%
		0.041	0.008	0.008	10%	0.008	10%
		0.080	0.016	0.016	10%	0.016	10%
Fig 1 (13)	Angle Zone A3	0.050	0.010	0.010	15%	0.010	15%
Fig 1 (14)	Bracket Zone A3	0.050	0.014	0.014	15%	0.014	15%
Fig 1 (15)	Angle Zone B3	0.080	0.016	0.016	10%	0.016	10%
Fig 1 (16)	Angle Zone A3	0.050	0.010	0.010	15%	0.010	15%

Table 2. Repairable Damage Limits After Blending (Continued)

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Corrosion	
				Depth	Area	Depth	Area
Fig 1 (17)	Web Zone A3	0.080 0.029	0.016 0.006	0.016 0.006	15% 10%	0.016 0.006	15% 10%
Fig 1 (21)	Channel Zone B3 Zone C3	0.070 0.220	0.014 0.014	0.014 0.014	10% 10%	0.014 0.014	10% 10%
Fig 1 (22)	Angle Zone B3 Zone C3	0.070 0.250	0.014 0.014	0.014 0.014	10% 10%	0.014 0.014	10% 10%
Fig 1 (24)	Web Zone A3 Zone B3	0.090 0.115 0.125 0.047 0.115 0.125	0.018 0.023 0.023 0.009 0.023 0.023	0.018 0.023 0.023 0.009 0.023 0.023	15% 10% 10% 10% 10% 10%	0.018 0.023 0.023 0.009 0.023 0.023	15% 10% 10% 10% 10% 10%
Fig 1 (25)	Floor Zone A3 Zone B3	0.080 0.040	0.016 0.008	0.016 0.008	15% 10%	0.016 0.008	15% 10%
Fig 1 (26)	Web Zone A3 Zone B3	0.080 0.080 0.037	0.016 0.016 0.007	0.016 0.016 0.007	15% 10% 10%	0.016 0.016 0.007	15% 10% 10%
Fig 1 (27)	Support Zone A3		0.015	0.015	15%	0.015	15%
Fig 1 (28)	Floor Zone A3 Zone B3	0.080 0.037 0.080	0.016 0.007 0.016	0.016 0.007 0.016	15% 10% 10%	0.016 0.007 0.006	15% 10% 10%
Fig 1 (29)	Support Zone A3		0.018	0.018	15%	0.018	15%
Fig 1 (30)	Support Zone A3		0.015	0.015	15%	0.015	15%
Fig 1 (31)	Support Zone A3		0.014	0.014	10%	0.014	10%

NOTES
 Webs only, ribs require engineering disposition.

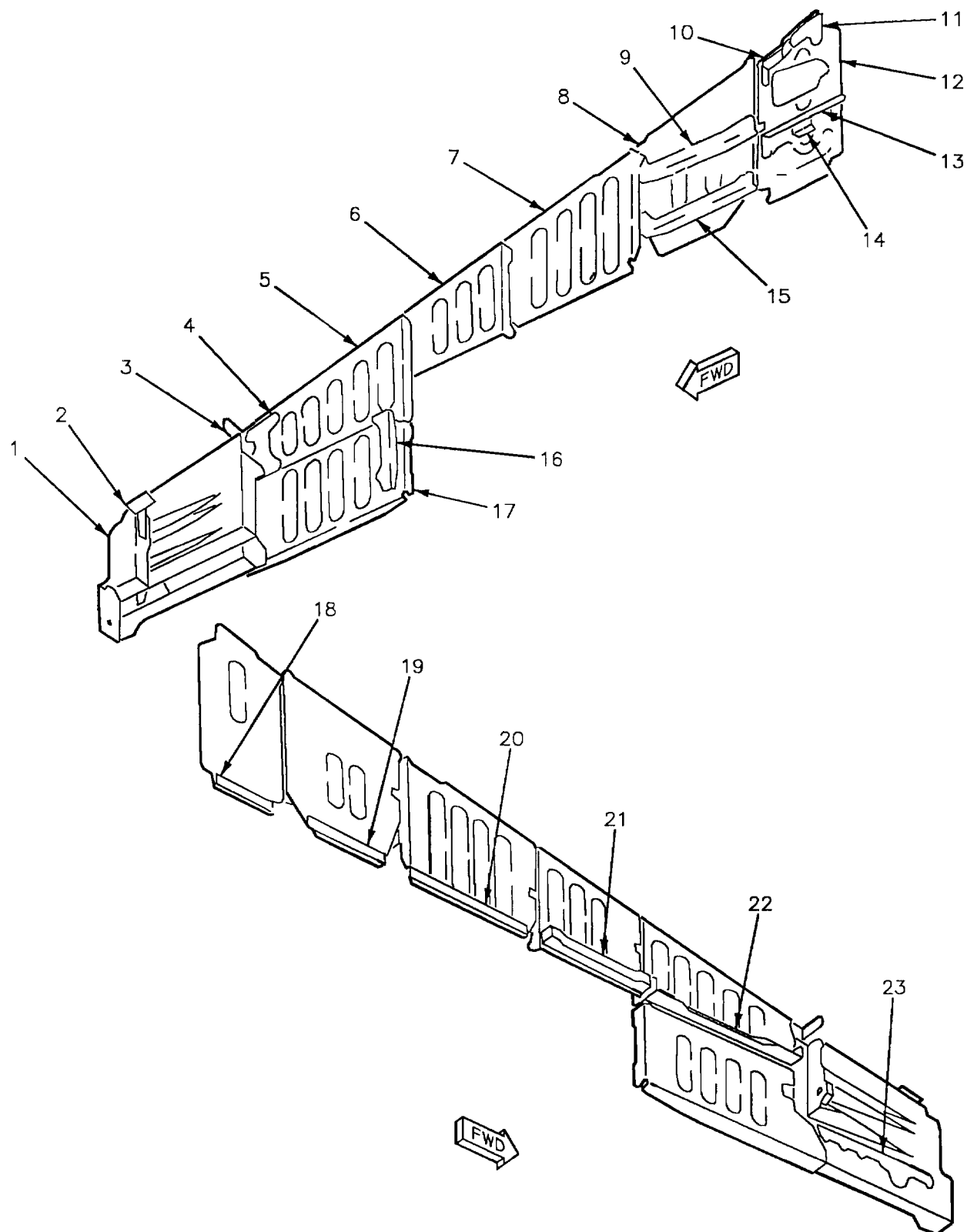
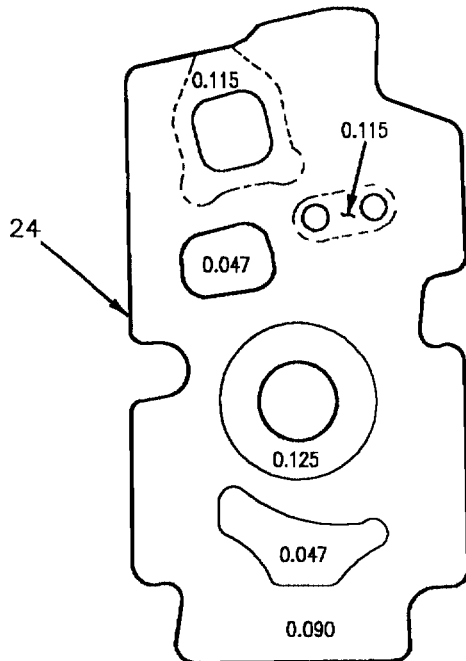
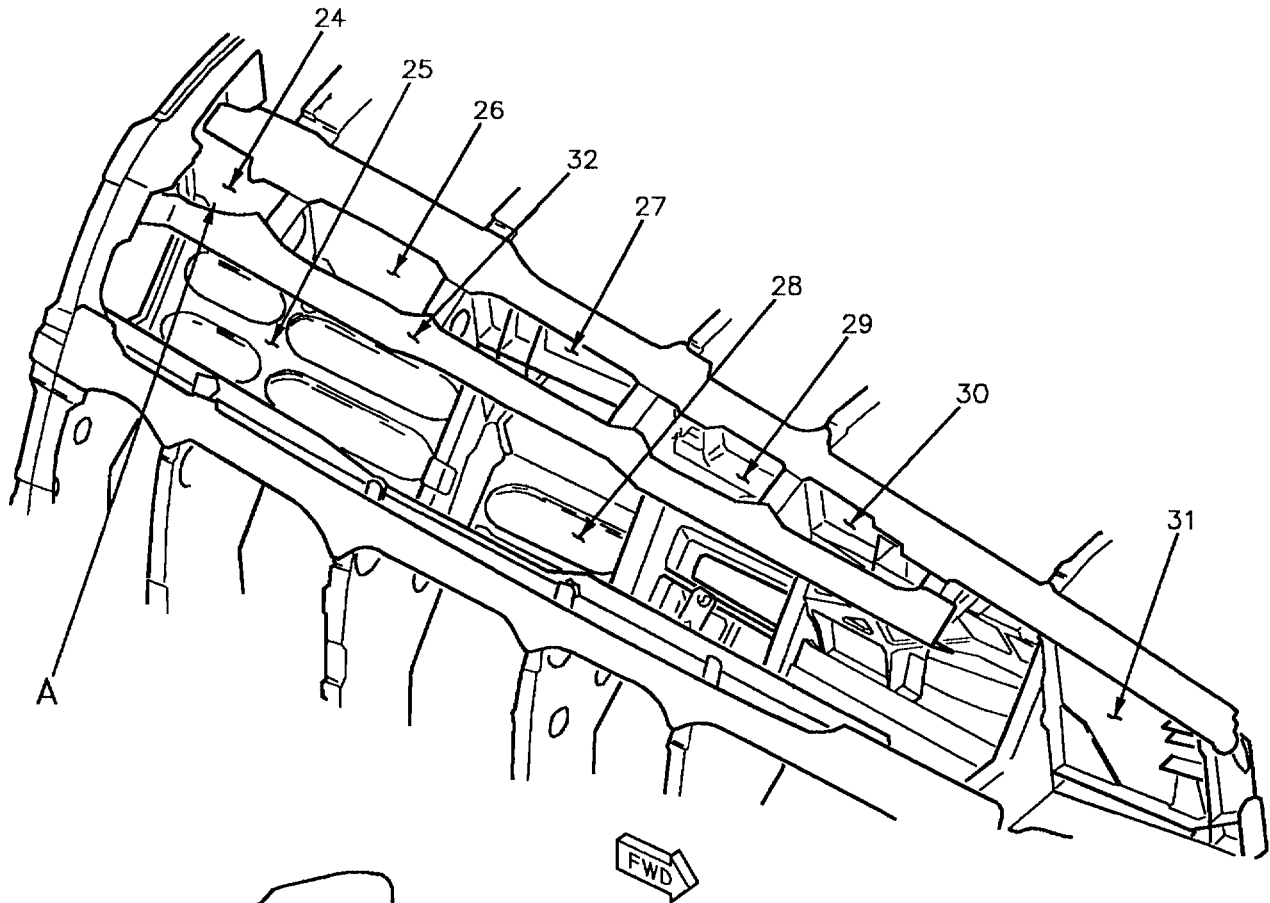
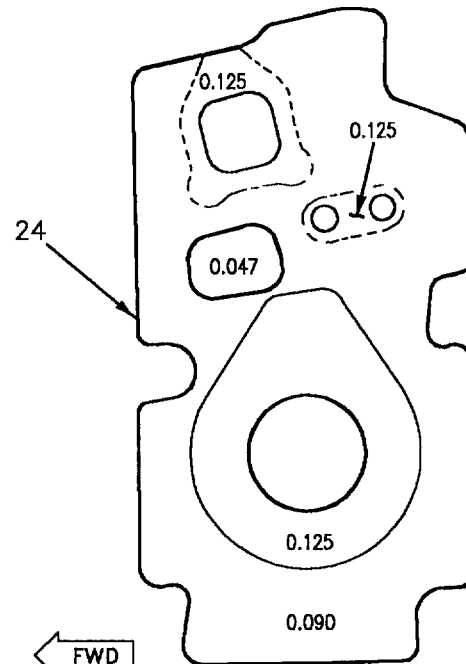


Figure 1. Material Index (Sheet 1)



161353 THRU 161528



161702 AND UP

A

Figure 1. Material Index (Sheet 2)













Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Support 74A313069-2001 74A313069-2003	Pressing	7075-T73 Al Aly
2		Tee 74A313030-2049	1MA160D01-10155 Extr	7075-T76 Al Aly
3		Tee 74A313030-2057	1MA160D06-10378 Extr	7075-T76511 Al Aly
4		Splice 74A313030-2027	0.080 Sheet	7075-T6 Alclad
5		Web 74A313030-2003	 Sheet	7075-T6 Alclad
6		Web 74A313030-2005	 Sheet	7075-T6 Alclad
7		Web 74A313030-2007	 Sheet	7075-T6 Alclad
8		Web 74A313030-2009	  Sheet	7075-T6 Alclad
9		Angle 74A313030-2067	0.080 Sheet	7075-T6 Alclad
10		Angle 74A313030-2037	0.071 Sheet	7075-T6 Alclad
11		Splice 74A313030-2019	0.080 Sheet	7075-T6 Alclad
12	  	Web 74A313030-2071 74A313030-9007 74A313030-2087	 Sheet	7075-T76 Alclad
13	 	Angle 74A313030-2063 74A313030-9009	0.050 Sheet	7075-T6 Alclad
14		Bracket 74A313030-2065	0.050 Sheet	7075-T6 Alclad
15		Angle 74A313030-2069	0.080 Sheet	7075-T6 Alclad
16		Angle 74A313030-2031	0.050 Sheet	7075-T6 Alclad

Figure 1. Material Index (Sheet 3)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
17		Web 74A313030-2001	18 Sheet	7075-T6 Alclad
18		Shim 74A313030-2021	0.062 Sheet	5052-H39 AL Lam
19		Shim 74A313030-2017	0.062 Sheet	5052-H39 Al Lam
20		Shim 74A313030-2029	0.062 Sheet	5052-H39 Al Lam
21		Channel 74A313152-2001	Machining	7075-T7351 Al Aly
22		Angle 74A313154-2001	Machining	7075-T7351 Al Aly
23		Spacer 74A313030-2025	0.080 Sheet	6061-T6 Al Aly
24	9 11 12 24	Web 74A313015-2127 74A313015-9023 74A313015-2179 74A313015-2201	0.160 Sheet	7075-T76 Al Aly
25		Floor 74A313014-2003	23 Sheet	7075-T6 Alclad
26	25 24	Web 74A313015-2031 74A313015-2199	19 Sheet	7075-T6 Alclad
27		Support 74A313143-2005	Pressing	7075-T73 Al Aly
28		Floor 74A313014-2015	19 Sheet	7075-T6 Alclad
29	3 4	Support 74A313145-9001 74A313145-2003	Pressing Pressing	7075-T7351 Al Aly 7075-T73 Al Aly
30	5 6 16 17	Support 74A313029-2007 74A313029-2009 74A313029-9009 74A313029-9011	Pressing	7075-T73 Al Aly

Figure 1. Material Index (Sheet 4)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
31	<div>5</div> <div>7</div> <div>8</div> <div>13</div>	Support 74A313067-2001 74A313067-9001 74A313067-2007 74A313067-9003	Pressing	7075-T73 Al Aly
32	<div>26</div> <div>27</div>	Sill 74A313018-2005 74A313018-2009	1MA160D01-10182 Extr	7075-T75 Al Aly
<p align="center">LEGEND</p> <div>1</div> 161353 THRU 161357. <div>2</div> 161358 AND UP. <div>3</div> 161354 THRU 161367. <div>4</div> 161353 AND 161519 AND UP. <div>5</div> 161353. <div>6</div> 161354 THRU 161705 AND 162400 AND UP. <div>7</div> 161355. <div>8</div> F/A-18A 161358 THRU 161705, 161937 THRU 161942. 161945 THRU 161948, 161950 THRU 161953, 161955 AND 161956, 161958 THRU 161960, 161962 AND 161963, 161965 THRU 161967, 161969 AND 161970, 161972, 161974 AND 161975, 161977 AND 161978, 161980, 161982 AND 161983, 161985, 162394 AND UP, F/A-18B 161354, 161356 THRU 161704, 161938 AND UP. <div>9</div> 161353 THRU 161528. <div>10</div> 161702 THRU 161746. <div>11</div> 161702 THRU 161924. <div>12</div> 161925 THRU 162892, 162894, 162895, 162897 THRU 162900, 162902, 162903, 162905, 162907, 162909, 163093 THRU 163096, 163098 THRU 163105, 163107 THRU 163111 AND 163113 THRU 163125. <div>13</div> F/A-18A 161706 THRU 161936, 161944, 161949, 161954, 161957, 161961, 161964, 161968, 161971, 161973, 161976, 161979, 161981, 161984, 161986 AND 161987, F/A-18B 161707 THRU 161932. <div>14</div> 161747 AND UP. <div>15</div> 161353 THRU 161528 AND 161747 AND UP. <div>16</div> 161706 THRU 161931, 161935, 161944, 161949, 161954, 161957, 161961, 161964, 161968, 161971, 161973, 161976 AND 161979. <div>17</div> 161932 THRU 161934, 161936 THRU 161943, 161945 THRU 161948, 161950 THRU 161953, 161955 AND 161956, 161958 THRU 161960, 161962 AND 161963, 161965 THRU 161967, 161969 AND 161970, 161972, 161974 AND 161975, 161977 AND 161978, 161980 THRU 162399. <div>18</div> Lands are 0.080 thick and bays are 0.029 thick. <div>19</div> Lands are 0.080 thick and bays are 0.037 thick. <div>20</div> Lands are 0.080 thick and upper bay is 0.032 thick. <div>21</div> Lands are 0.080 thick and lower bays are 0.041 thick. <div>22</div> Land is 0.080 thick and bay is 0.041 thick. <div>23</div> Land is 0.080 thick and bays are 0.040 thick. <div>24</div> F/A-18A 162893, 162896, 162901, 162904, 162906, 162908, 163092, 163097, 163106, 163112 AND 163126 THRU 163175, F/A-18B 162885 THRU 163123. <div>25</div> 161353 THRU 162892, 162894, 162895, 162897 THRU 162900, 162902, 162903, 162905, 162907, 162909, 163093 THRU 163096, 163098 THRU 163105, 163107 THRU 163111 AND 163113 THRU 163125. <div>26</div> F/A-18A 161353 THRU 163096, 163098 THRU 163105, 163107 THRU 163111 AND 163113 THRU 163130, F/A-18B 161354 THRU 162885. <div>27</div> F/A-18A 163097, 163106, 163112 AND 163131 AND UP, F/A-18B 163104 AND UP.				

Figure 1. Material Index (Sheet 5)

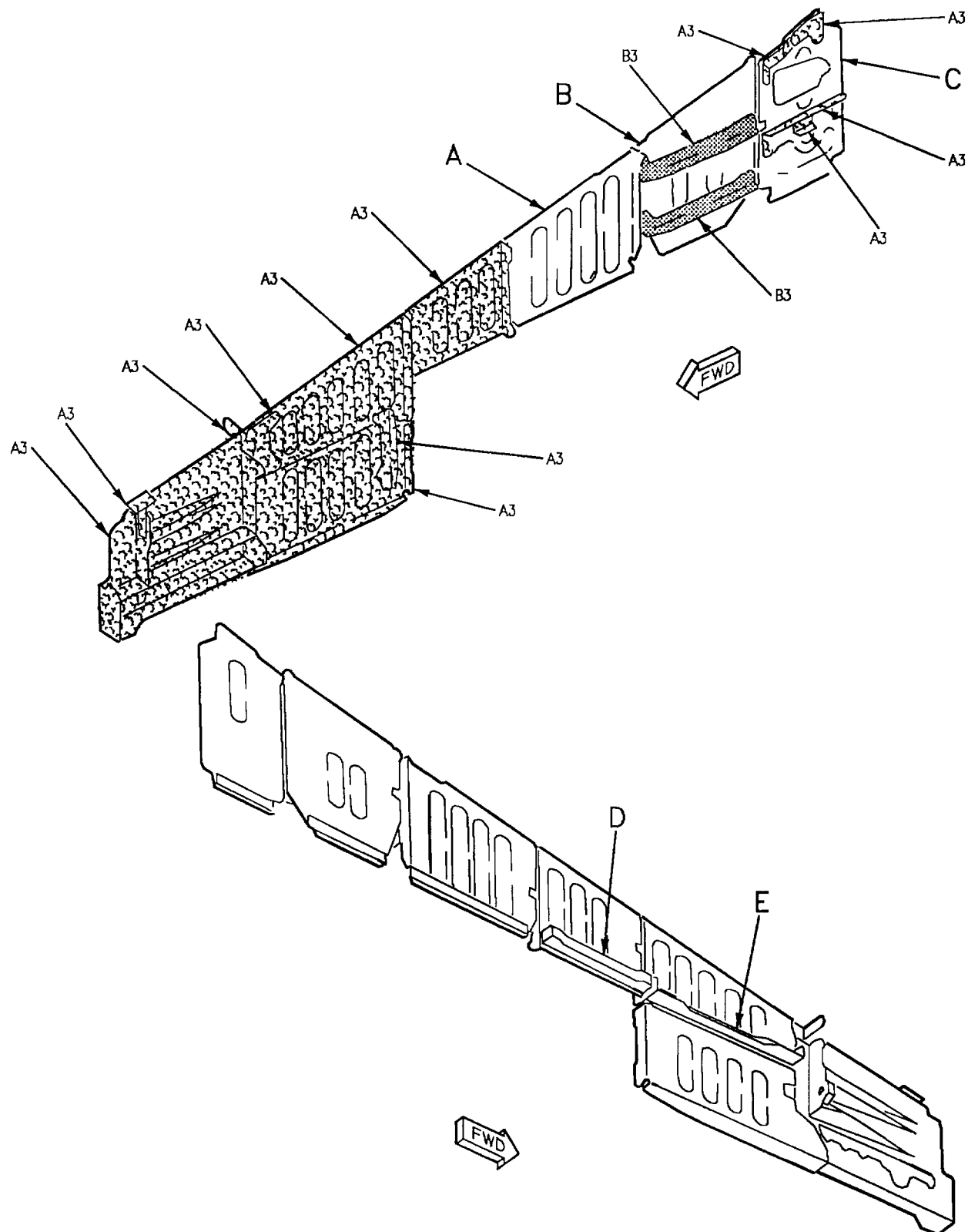


Figure 2. Repair Zones (Sheet 1)

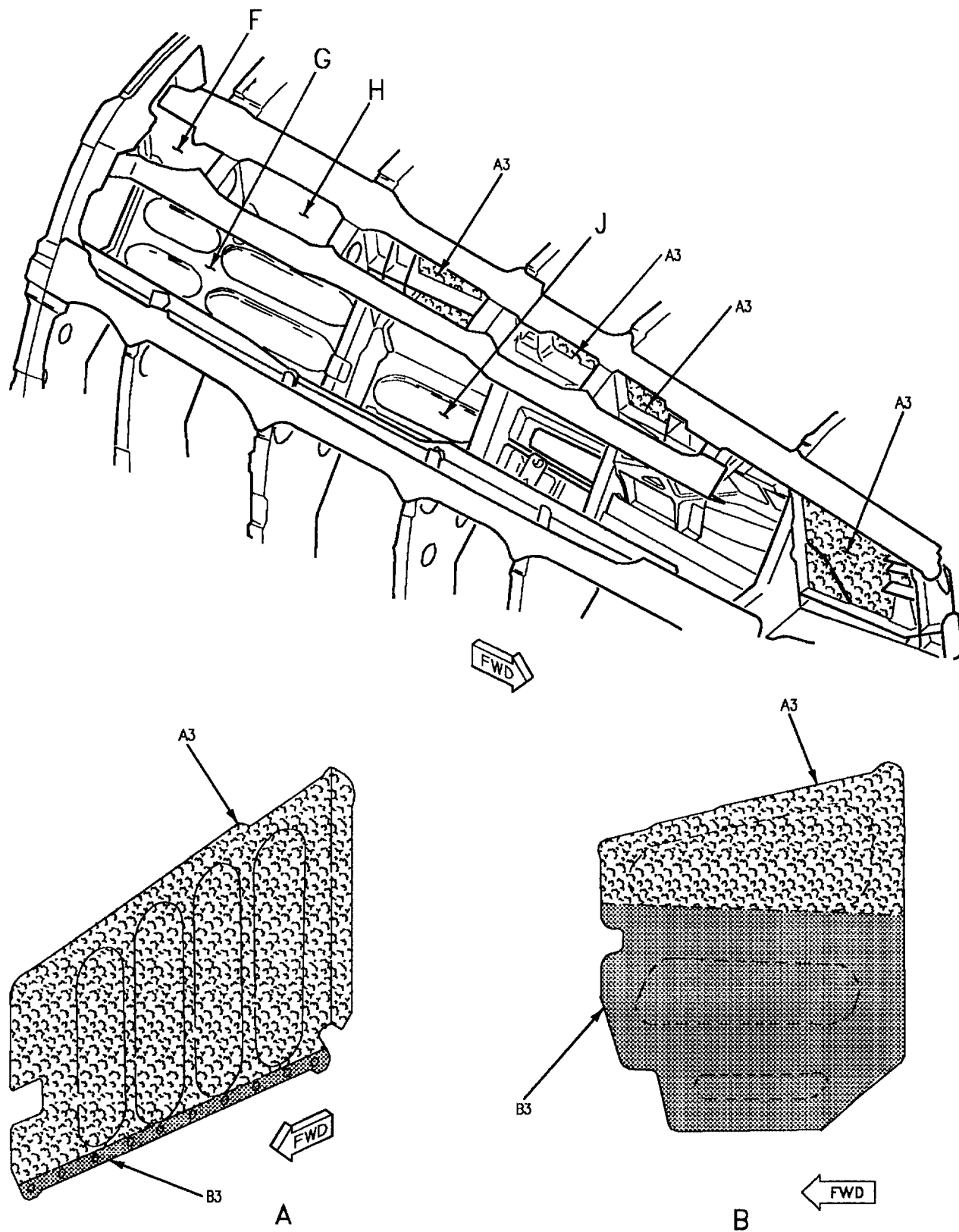


Figure 2. Repair Zones (Sheet 2)

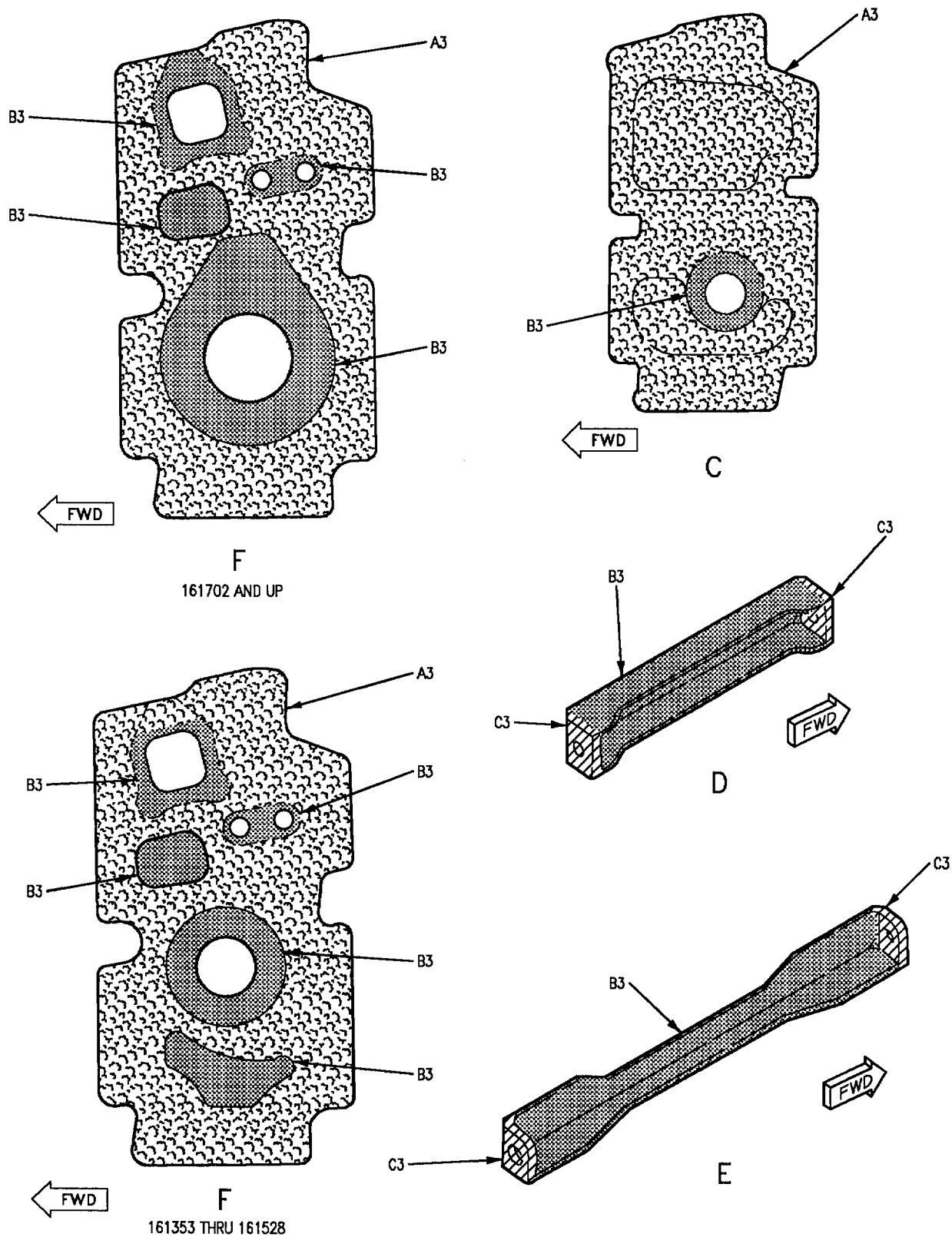


Figure 2. Repair Zones (Sheet 3)

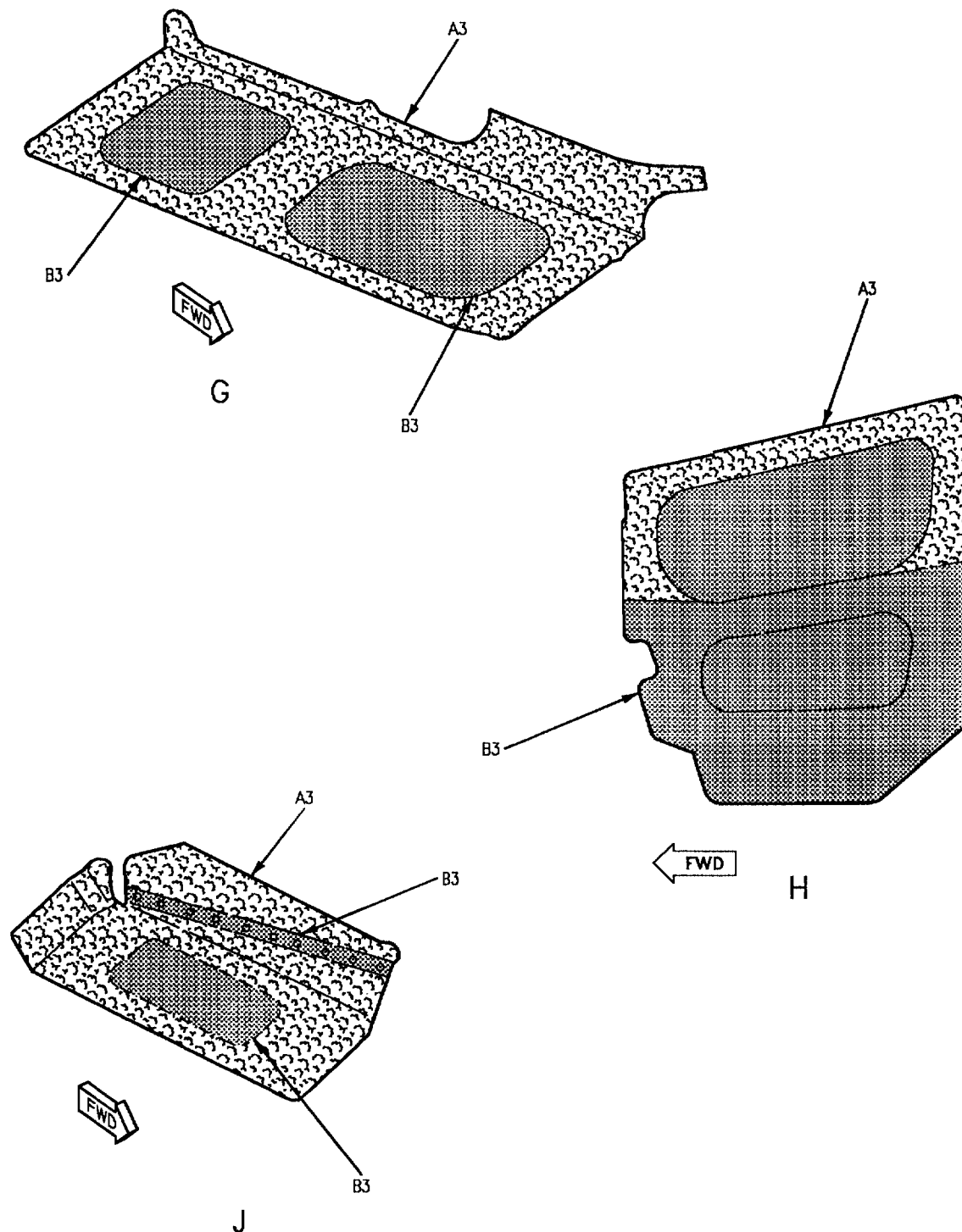


Figure 2. Repair Zones (Sheet 4)

13. **REPLACEMENT.**14. **RADAR RACKSHIMS.** See figure 3.**Support Equipment Required**

None

Materials Required**Specification or
Part Number****Nomenclature**A-A-1047 GRIT
180 - 9X11

Abrasive Paper

TT-M-261

Methyl Ethyl Ketone

CCC-C-440,
TYPE 1, CLASS 1

Cheesecloth

MMM-A-132,
TYPE 1, CLASS 3

Adhesive

a. Remove electrical equipment rack support and slide assemblies (A1-F18AC-742-300, WP015 00).

b. Remove damaged shim and adhesive.

c. Sand remaining adhesive smooth using grit abrasive paper.



Methyl Ethyl Ketone, TT-M-261

10

d. Clean surface with clean cheesecloth moistened with methyl ethyl ketone.



Adhesive, MMM-A-132, Type 1, Class 3

11

e. Mix adhesive (A1-F18AC-SRM-200, WP011 00).

f. Apply a thin film of adhesive to shim and structure.

g. Assemble and apply pressure to make sure of complete contact. Wipe off excess adhesive and cure adhesive (A1-F18AC-SRM-200, WP011 00).

h. Install electrical equipment rack support and slide assemblies (A1-F18AC-742-300, WP015 00).

15. **STOP/LIMIT SWITCH BRACKET, I.F.R.****PROBE.** See figure 4. Bracket is replaceable and requires drilling. Fastener attaching hardware is shown on figure 4. For fasteners (A1-F18AC-460-300, WP082 00).**Support Equipment Required**

None

Materials Required**Specification or
Part Number****Nomenclature**MIL-S-8802, TYPE 2,
CLASS A-1/2

Sealing Compound

a. Removal.

(1) Extend I.F.R. Probe.

(a) Apply external hydraulic and electrical power (A1-F18AC-LMM-000).

(b) On cockpit FUEL system control panel, set PROBE control switch to EXTEND.

(c) Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

(d) Install probe ground safety lock (A1-F18AC-PCM-000).

(2) Remove damaged bracket.

(3) Clean old sealing compound from structure and old bracket.

(4) Use existing bracket as template to locate and drill holes in new bracket.

b. Replacement.

(1) Install new bracket.

Sealing Compound, MIL-S-8802,
Type 2, Class A-1/2

12

(2) Brush apply sealing compound around bracket mating structure.

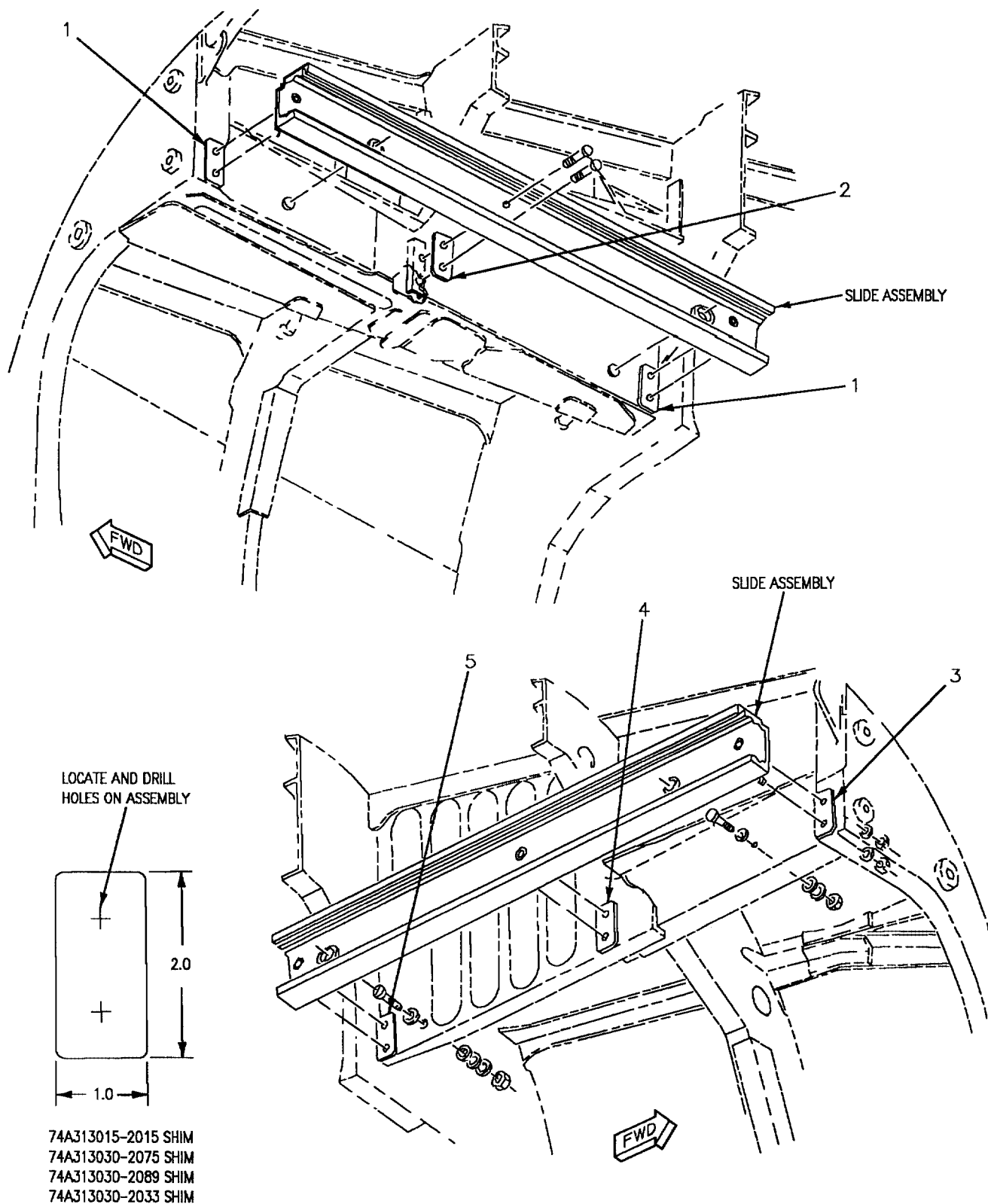
(3) Retract I.F.R. Probe.

(a) Remove probe around safety lock
(A1-F18AC-PCM-000).

(b) Apply external hydraulic and electrical
power (A1-F18AC-LMM-000).

(c) On cockpit FUEL system control panel, set
PROBE control switch to RETRACT.

(d) Remove external hydraulic and electrical
power (A1-F18AC-LMM-000).



18AC-SRM-221-(20-1)03-SCAN

Figure 3. Radar Rack Shims Replacement (Sheet 1)












Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Shim  74A313015-2015	0.062 Sheet	5052-H39 Alum Lam
2		Shim  74A313015-2015	0.062 Sheet	5052-H39 Alum Lam
3	 	Shim  74A313030-2075 74A313030-2089	0.094 Sheet 0.126 Sheet	5052-H39 Alum Lam 5052-H39 Alum Lam
4		Shim  74A313030-2033	0.094 Sheet	5052-H39 Alum Lam
5		Shim  74A313030-2075	0.094 Sheet	5052-H39 Alum Lam
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.281 +0.007 -0.000.</p> <p> Hole diameter is 0.255 +0.007 -0.000.</p> <p> 161353 THRU 162477.</p> <p> 162826 AND UP.</p>				

Figure 3. Radar Rack Shims Replacement (Sheet 2)

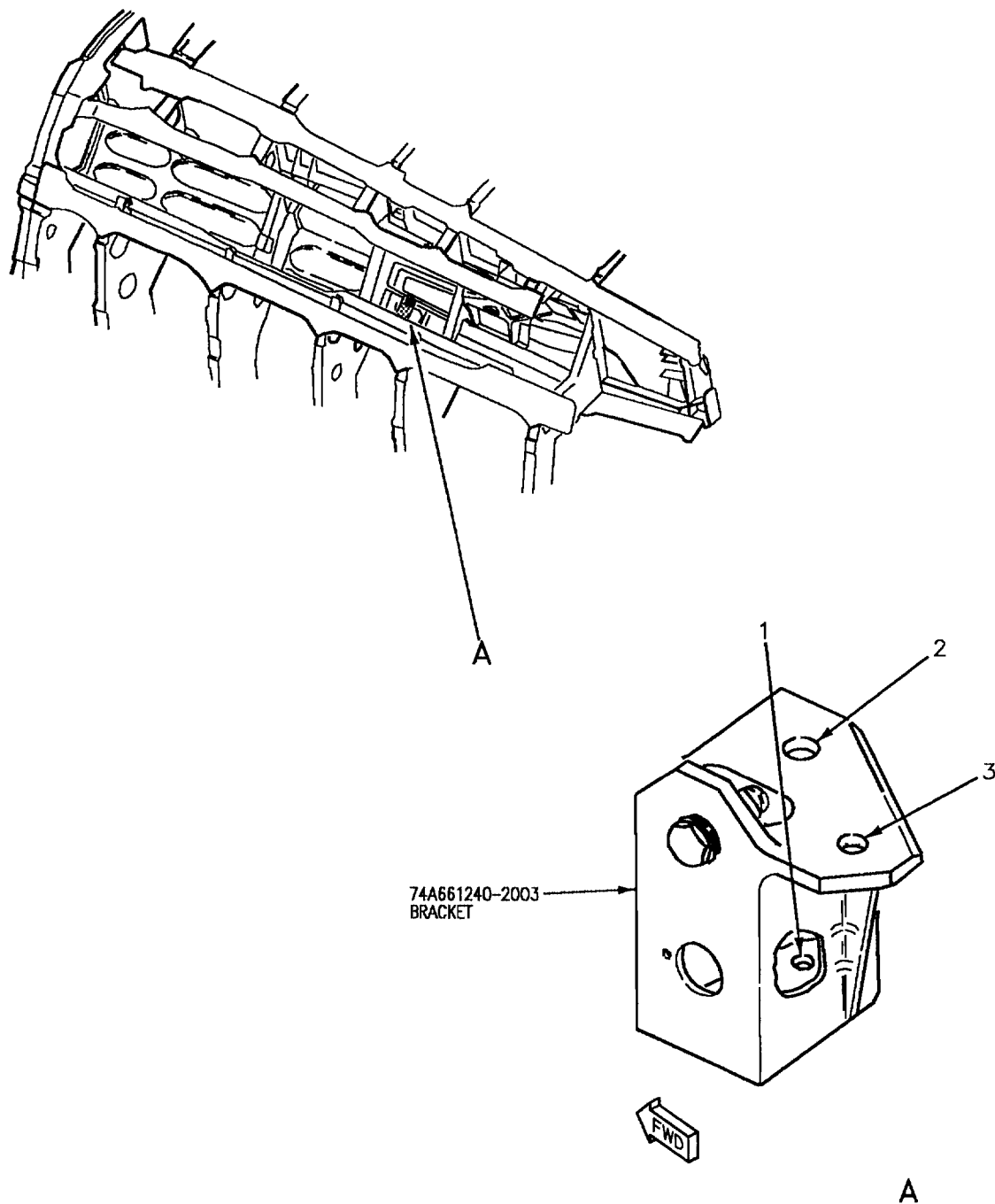


Figure 4. Stop/Limit Switch Bracket, I.F.R. Probe, Replacement (Sheet 1)







Idx No.	Eft		Nomenclature	Part Number
1			Gang Channel	G14421-2-3F10-2
2			Nut	LH12180-5
3			Nut	MS21042L-4
LEGEND				
 Hole diameter is 0.191 +0.006 -0.000.				
 Hole diameter is 0.312 +0.007 -0.000.				
 Hole diameter is 0.250 +0.006 -0.000.				

Figure 4. Stop/Limit Switch Bracket, I.F.R. Probe, Replacement (Sheet 2)

ORGANIZATIONAL AND INTERMEDIATE MAINTENANCE

STRUCTURE REPAIR

NOSE BARREL EXTERNAL DOORS

Reference Material

Structural Hardware	NAVAIR 01-1A-8
Aircraft Weapons Systems Cleaning and Corrosion Control	NAVAIR 01-1A-509
Structure Repair, General Information	A1-F18AC-SRM-200
Introduction	WP002 00
Gang Channel and Plate Nut Identification and Repair	WP004 05
Structure Repair, Typical Repair	A1-F18AC-SRM-250
Aluminum Patch Fabrication	WP006 01
Aluminum, Graphite Epoxy, or Titanium Patch Installation and Removal	WP007 00
Aluminum Sheet, Free of Structure and Land Areas	WP031 00
Aluminum and Titanium Sheet, Formed Structure	WP033 00
Aluminum Sheet Edge Repair	WP034 00
Aluminum Sheet Repairs Across Structure and Lands	WP036 00
Blending	WP038 00
Aircraft Corrosion Control	A1-F18AC-SRM-500
Form In Place Sealing	WP010 00
Priming Procedures	WP011 00
Nose Barrel Finish System and Markings	WP018 00
Structure Illustrated Parts Breakdown - Forward Fuselage	A1-F18AC-SRM-420
Fuselage Nose Section - Fwd Fus, Assy of	FIG 024 00
Cover, Access - Aft Gun Mount, Fuselage Nose Section (Left Side) (Door 4)	FIG 025 00
Door, Access - Fuselage Nose Section, Instl of (Emer Canopy RLSE)	FIG 027 00
Door, Access - Fuselage Nose Section, Instl of (Ground Refuel) (Right Side)	FIG 029 00
Gun System	A1-F18AC-750-300
Gun Bay Scavenge Door	WP005 00
Tactical Electronic Warfare Systems	A1-F18AC-760-300
Right Forward Antenna - Radome AS-3359/ALR	WP041 00
Left Forward Antenna - Radome AS-3360/ALR	WP042 00
Line Maintenance Access Doors	A1-F18AC-LMM-010

Alphabetical Index

Subject	Page No.
Damage Evaluation	2
Negligible Damage	2
Repairable Damage	2
Repairs	3
Permanent Repairs	3
Cracks	3
Dents	4
Door, 74A732015, Bushing Repair, Intermediate Maintenance	5
Edge	4
Holes	3
Scratches, Nicks, Gouges, or Corrosion	3

Alphabetical Index (Continued)

Subject	Page No.
Replacement	18
Antenna Radome	18
Cover (Door 4)	18
Cover (Door 59)	18
Cover (Door 104)	18
Cover (Door 105)	18
Cover (Door 109)	18
Cover (Door 140)	18
Door 5	18
Door 8	18
Removal of 74A315001-2019 Angle - 161353 THRU 162414	18

Record of Applicable Technical Directives

None

1. **DAMAGE EVALUATION.** See figures 1 and 2.**NOTE**

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The types of materials used are shown on figure 1. Repair zones are shown on figure 2. Allowable damage limits within repair zones are listed in tables 1 and 2. Damage not listed or exceeding the following limits require a depot engineering disposition.

The limits in table 2 apply after blending the damage.

a. Scratches.

(1) Any scratches within one diameter of any hole must be blended out. Minimum blend out is one diameter from edge of any hole.

(2) Scratches to be blended out with diameter, or width, at surface at least 20 times the depth.

b. Nicks, gouges, and corrosion to be blended out with diameter, or width, at surface at least 20 times the depth.

c. Cracks. All cracks must be repaired.

d. Holes.

(1) Damage in areas free of structure and lands must have edge of cleanup hole at least eight repair fastener diameters from any land, internal structure or existing row of fasteners.

(2) Damage to lands, over structure, only one repair per land.

e. Dents exceeding the limits in table 1 must be repaired.

3. **NEGLIGIBLE DAMAGE.** Negligible damage is damage that may be allowed to exist as is. However, preventive maintenance for temporary corrosion arrestment should be done to scratches (NAVAIR 01-1A-509). The types and limits of damage are listed below and in table 1. The figure and index numbers in table 1 coincide with the figure and index numbers in the material index.

a. Scratches are not allowed within one diameter from the edge of any hole.

b. Smooth dents only, effective diameter at least 20 times the depth.

4. **REPAIRABLE DAMAGE.** The types and limits of damage are listed below and in table 2. The figure and index numbers in table 2 coincide with figure and index numbers in the material index, figure 1.

5. REPAIRS.

6. Types of repairs are temporary, one-time flight, permanent, critical area, alternate and typical. Repair type definitions are in structure repair terms (A1-F18AC-SRM-200, WP002 00).

7. PERMANENT REPAIRS.

8. **Scratches, Nicks, Gouges, or Corrosion.** Blend scratches, nicks, gouges, or corrosion (A1-F18AC-SRM-250, WP038 00). If after blending, the damage limits of table 2 are exceeded, repair aluminum sheet as below. Refinish blended areas (A1-F18AC-SRM-500, WP018 00).

a. Scratches - make crack or edge repairs.

b. Nicks, gouges, or corrosion - make hole or edge repair.

9. Cracks.

a. In repair zones A1 and A3, repair cracks free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00) as below:

(1) Stop drill ends of crack in zone A1. Rout out crack in zone A3.

(2) In repair zone A1 or A3 install a lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500 WP018 00).

b. In repair zones B3, repair cracks free of structure or land areas in aluminum sheet (0.050 inch thickness or less) as below:

(1) Completely cut out crack in the smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zones A1 and A3, repair cracks across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00) as below:

(1) Cut out damage.

(2) In repair zones A1 and A3, make repairs as below:

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay, install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

d. In repair zone A1 or A3, repair cracks in aluminum formed structure (A1-F18AC-SRM-250, WP033 00) as below:

(1) Cut out damage.

(2) In repair zones A1 or A3, install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

10. Holes.

a. In repair zones A1 and A3, repair holes free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00) as below:

(1) Cut out damage.

(2) In repair zones A1 and A3, install a type one flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

b. In repair zones B3, repair holes free of structure or land areas in aluminum sheet (0.050 inch thickness or less) as below:

(1) Completely cut out damage in the smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zones A1 and A3, repair holes across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00) as below:

(1) Cut out damage.

(2) In repair zones A1 or A3, make repairs as below:

(a) Damage to Bay Requiring Repair Across Lands; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay, install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

d. In repair zone A1 or A3, repair holes in aluminum formed structure (A1-F18AC-SRM-250 WP033 00) as below:

(1) Cut out damage.

(2) In repair zone A1 or A3, install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

11. **Edge.** In repair zones A1 and A3, repair edge damage in aluminum sheet (A1-F18AC-SRM-250, WP034 00) as below:

a. Cut out damage.

b. Select and install repair patch as below:

(1) Corner Damage to Lands.

(2) Corner Damage to Lands and Bays.

(3) Edge Damage to Lands.

(4) Edge Damage to Lands and Bays.

(5) Full Width Damage to End.

c. Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

12. Dents.

a. In repair zones A1 and A3, repair dents free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00) as below:

(1) Cut out damage.

(2) In repair zones A1 and A3, install a type one flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

b. In repair zones B3, repair dents free of structure or land areas in aluminum sheet (0.050 inch thickness or less) as below:

(1) Completely cut out damage in the smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zones A1 and A3, repair dents across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00) as below:

(1) Cut out damage.

(2) In repair zones A1 and A3, make repairs as below:

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land an Bay, install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

d. In repair zone A1 and A3, repair dents in aluminum formed structure (A1-F18AC-SRM-250, WP033 00) as below:

(1) Cut out damage.

(2) In repair zones A1 and A3, install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

13. Door, 74A732015, Rushing Repair, Intermediate Maintenance. See figure 3.

a. Remove door (A1-F18AC-750-300, WP005 00).



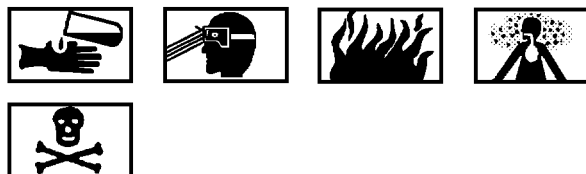
When removing bushing, care should taken not to damage hole in door.

b. Remove bushing.

c. Check hole size in door to see if standard or oversize hole condition exists.

d. Replace with standard bushing if hole size is within specified tolerance.

e. Replace with oversize bushing if hole size is not within specified tolerance per substeps below:



Beryllium

13

(1) Fabricate bushing using dimensions shown in figure 3.

(2) Drill and ream oversize hole in door.

(3) Install bushing and finish line ream hole in bushing.

f. Hole size in door exceeding specified tolerance requires engineering disposition.



























g. Apply finish system as required (A1-F18AC-SRM-500, WP018 00).

h. Install door (A1-F18AC-750-300, WP005 00).

Table 1. Negligible Damage Limits

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 1 (1)	Door 4 Zone A3	0.060 0.125	0.002 0.002	0.002 0.002	100% 100%	0.030 	
Fig 1 (2)	Door 59 Zone A1 Ribs	0.050 -	0.002 0.002	0.002 0.002	100% 100%	0.025 	
Fig 1 (3)	Door 109 Zone A3	0.065 0.080	0.002 0.002	0.002 0.002	100% 100%	0.032 	
Fig 1 (4)	Door 140 Zone A3 Zone B3	0.080 0.050	0.002 0.0006	0.002 0.0006	100% 100%	 0.025	
Fig 1 (5)	Door	Surfaces	0.005	0.010	20%		

Table 1. Negligible Damage Limits (Continued)

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 1 (6)	Door 105 Zone B3	0.050 0.090	0.0006 0.0006	0.002 0.002	100% 100%	0.025 	 
Fig 1 (7)	Door 104 Zone A3	0.050 0.090	0.002 0.002	0.002 0.002	100% 100%	0.025 	 
Fig 1 (8)	Door 5 Zone A1	0.070 0.090 0.150 0.213 0.250	0.002 0.002 0.002 0.002 0.002	0.002 0.002 0.002 0.002 0.002	100% 100% 100% 100% 100%	    	    
Fig 1 (9)	Door 8 Zone A1	0.040 0.070 0.090 0.200	0.002 0.002 0.002 0.002	0.002 0.002 0.002 0.002	100% 100% 100% 100%	   	   
Fig 1 (11)	Skin Zone A3	0.090 0.040	0.002 0.002	0.002 0.002	100% 100%	0.045 	5% 
Fig 1 (12)	Door Zone A3	Surfaces	0.002	0.002	100%	0.023	N/A

NOTES


 None allowed.

Table 2. Repairable Damage Limits After Blending

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Corrosion	
				Depth	Area	Depth	Area
Fig 1 (1)	Door 4 Zone A3	0.060 0.125	0.012 0.025	0.012 0.025	15% 15%	0.012 0.025	15% 15%
Fig 1 (2)	Door 59 Zone A1 Ribs	0.050 Outbd Surface Inbd Surface	0.010 0.010 0.015	0.010 0.010 0.015	15% 15% 15%	0.010 0.010 0.015	15% 15% 15%
Fig 1 (3)	Door 109 Zone A3	0.065 0.080	0.013 0.016	0.013 0.016	15% 15%	0.013 0.016	15% 5%
Fig 1 (4)	Door 140 Zone A3 Zone B3	0.080 0.050	0.016 0.010	0.016 0.010	15% 15%	0.016 0.010	15% 15%
Fig 1 (5)	Door	Surfaces	0.010	0.020	20%	0.020	20%
Fig 1 (6)	Door 105 Zone B3	0.050 0.090	0.010 0.018	0.010 0.018	15% 15%	0.010 0.018	15% 15%
Fig 1 (7)	Door 104 Zone A3	0.050	0.010	0.010	15%	0.010	15%
Fig 1 (8)	Door 5 Zone A1	0.070 0.090 0.150 0.213 0.250	0.014 0.018 0.018 0.018 0.018	0.014 0.018 0.018 0.018 0.018	15% 15% 15% 15% 15%	0.014 0.018 0.018 0.018 0.018	15% 15% 15% 15% 15%
Fig 1 (9)	Door 8 Zone A1	0.040 0.070 0.090 0.200	0.008 0.014 0.018 0.008	0.008 0.014 0.018 0.008	15% 15% 15% 15%	0.008 0.014 0.018 0.008	15% 15% 15% 15%
Fig 1 (11)	Skin Zone A3	0.090 0.040	0.018 0.008	0.018 0.008	15% 15%	0.018 0.008	15% 15%
Fig 1 (12)	Door Zone A3	Surfaces	0.010	0.010	15%	0.010	15%

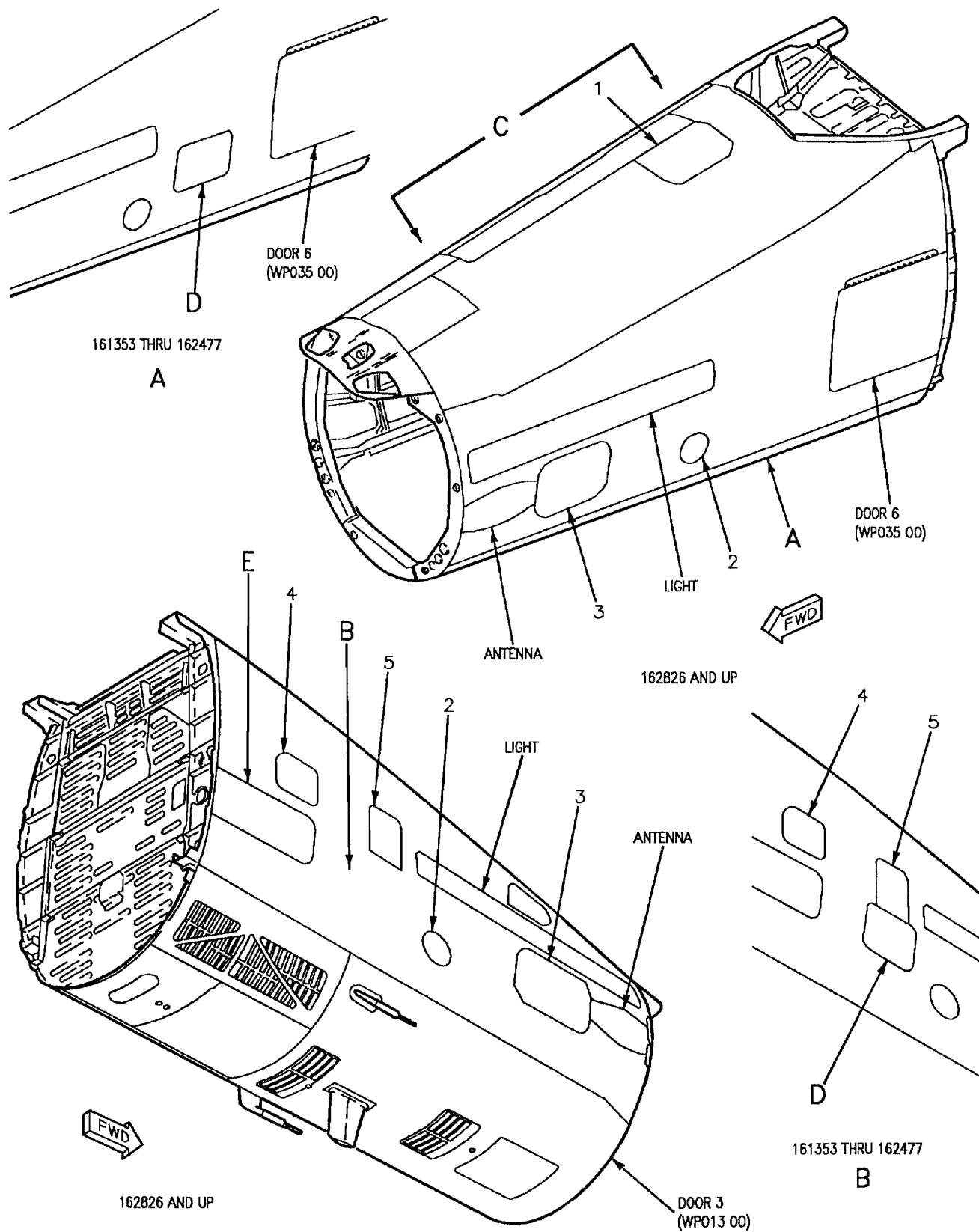
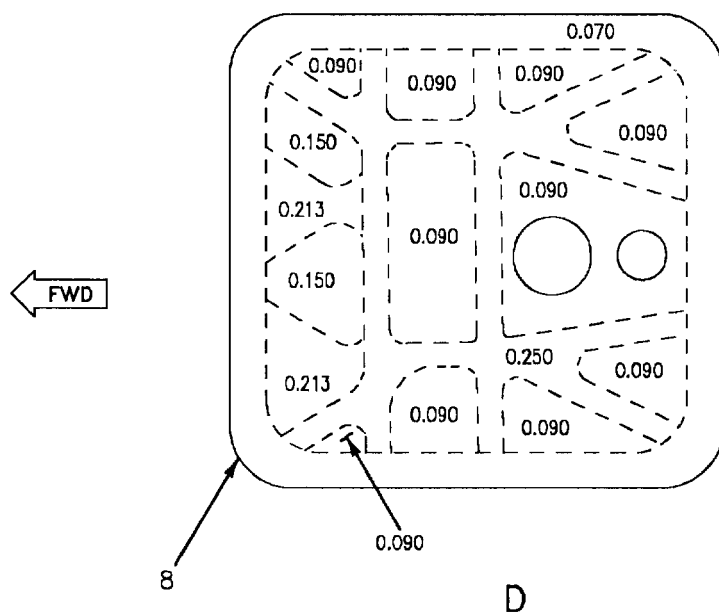
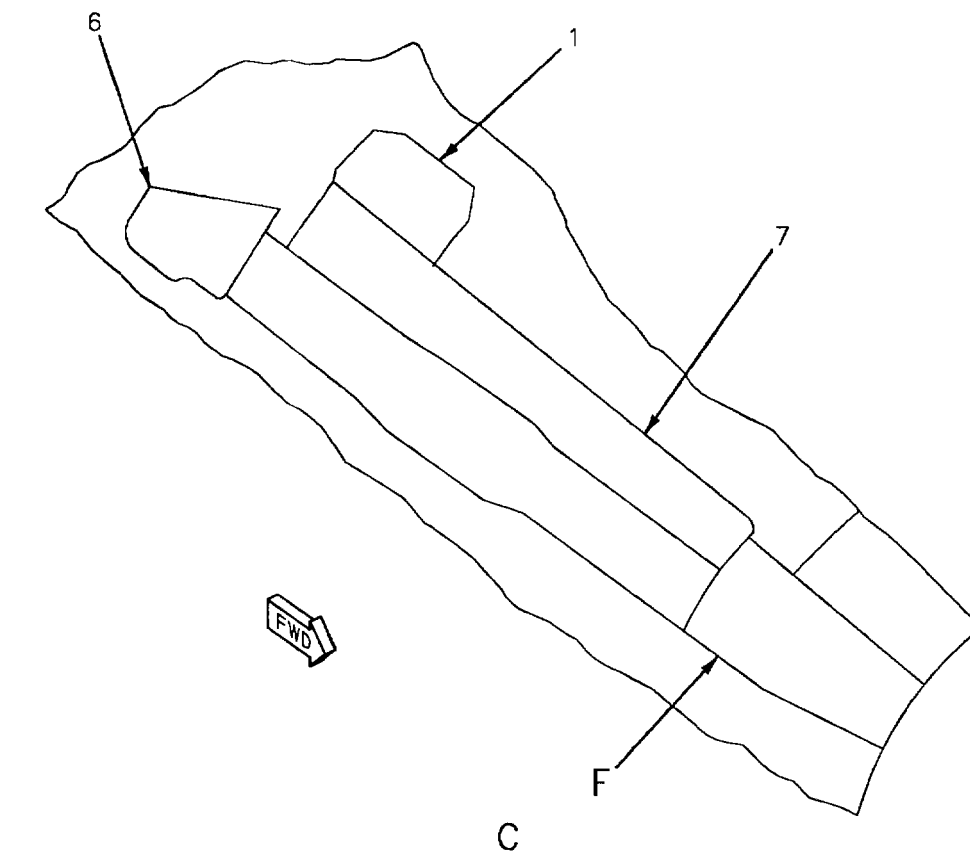


Figure 1. Material Index (Sheet 1)



161353 THRU 162477

Figure 1. Material Index (Sheet 2)

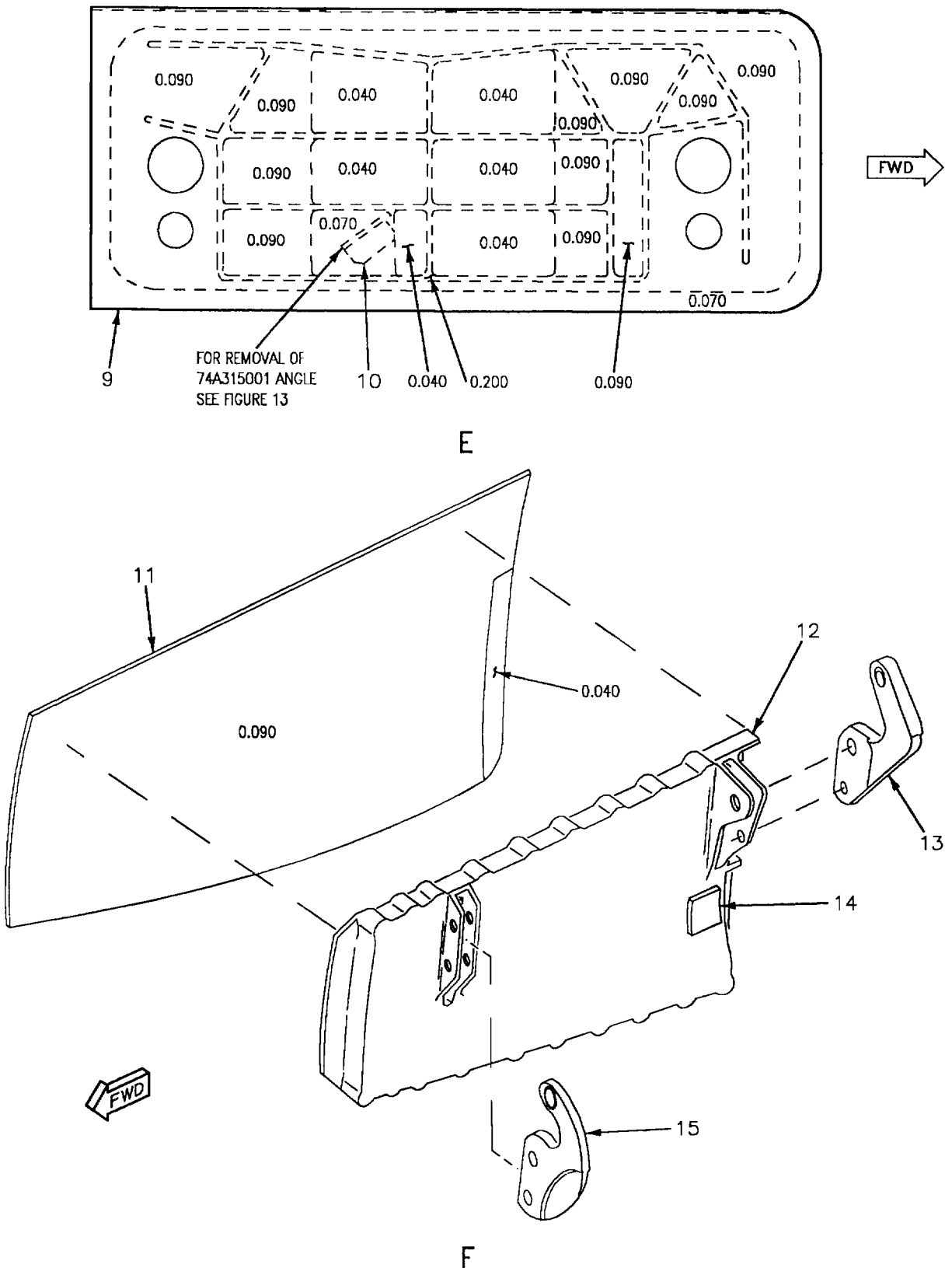


Figure 1. Material Index (Sheet 3)





















Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Cover (Door 4) 74A313102-2007	 Sheet	7075-T76 Alclad
2	 	Cover (Door 59) 74A315060-2015, -2016 74A315060-2013, -2014	Machining	A356-T61 Al Alclad
3		Cover (Door 109) 74A313103-2003, -2004	 Sheet	 7075-T6 Alclad
4		Cover (Door 140) 74A313019-2005	 Sheet	7075-T6 Alclad
5	   	Door 74A732015-2013 74A732015-2015 74A732015-2017 74A732015-2025	Machining	A356-T61 Al Aly
6		Cover (Door 105) 74A313138-2005	 Sheet	7075-T76 Alclad
7		Cover (Door 104) 74A313135-2007	 Sheet	7075-T76 Alclad
8		Cover (Door 5) 74A315011-2011, -2012	Machining	7075-T7651 Alclad
9	  	Cover (Door 8) 74A315012-2011 74A315012-2013 74A315012-2015	Machining	7075-T7651 Alclad
10		Angle 74A315001-2019	1MA100D06-10332 Extr	7075-T6511 Al Aly
11		Skin 74A313207-2001	0.090 Sheet	7075-T76 Alclad
12	  	Door 74A313208-9001 74A313208-9003 74A313208-2003	Machining Pressing	7075-T7351 Al Aly 7075-T73 Al Aly
13		Hinge 74A313023-2005	Machining	7075-T7351 Al Aly
14		Bumper 74A313017-2009	0.125 Sheet	Silicone Rubber
15		Hinge 74A313025-2003	Machining	7075-T7351 Al Aly

Figure 1. Material Index (Sheet 4)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
LEGEND				
1		Land is 0.125 thick and bay is 0.060 thick.		
2		Land is 0.080 thick and bay is 0.065 thick.		
3		Land is 0.080 thick and bay is 0.050 thick.		
4		Land is 0.090 thick and bay is 0.050 thick.		
5		Clad on moldline side only.		
6		161353 THRU 161736.		
7		161737 THRU 162414.		
8		161353 THRU 161714.		
9		161715 THRU 161965.		
10		161966 THRU 162477.		
11		161353 THRU 162414.		
12		162415 AND UP.		
13		161353 THRU 161520.		
14		161521 AND UP.		
15		162826 AND UP.		
16		161353 THRU 162477.		
17		161353 THRU 161359.		
18		161940 THRU 161957, 162394, 162395.		
19		161360 THRU 161939, 161958 THRU 161987, 162396 AND UP.		

Figure 1. Material Index (Sheet 5)

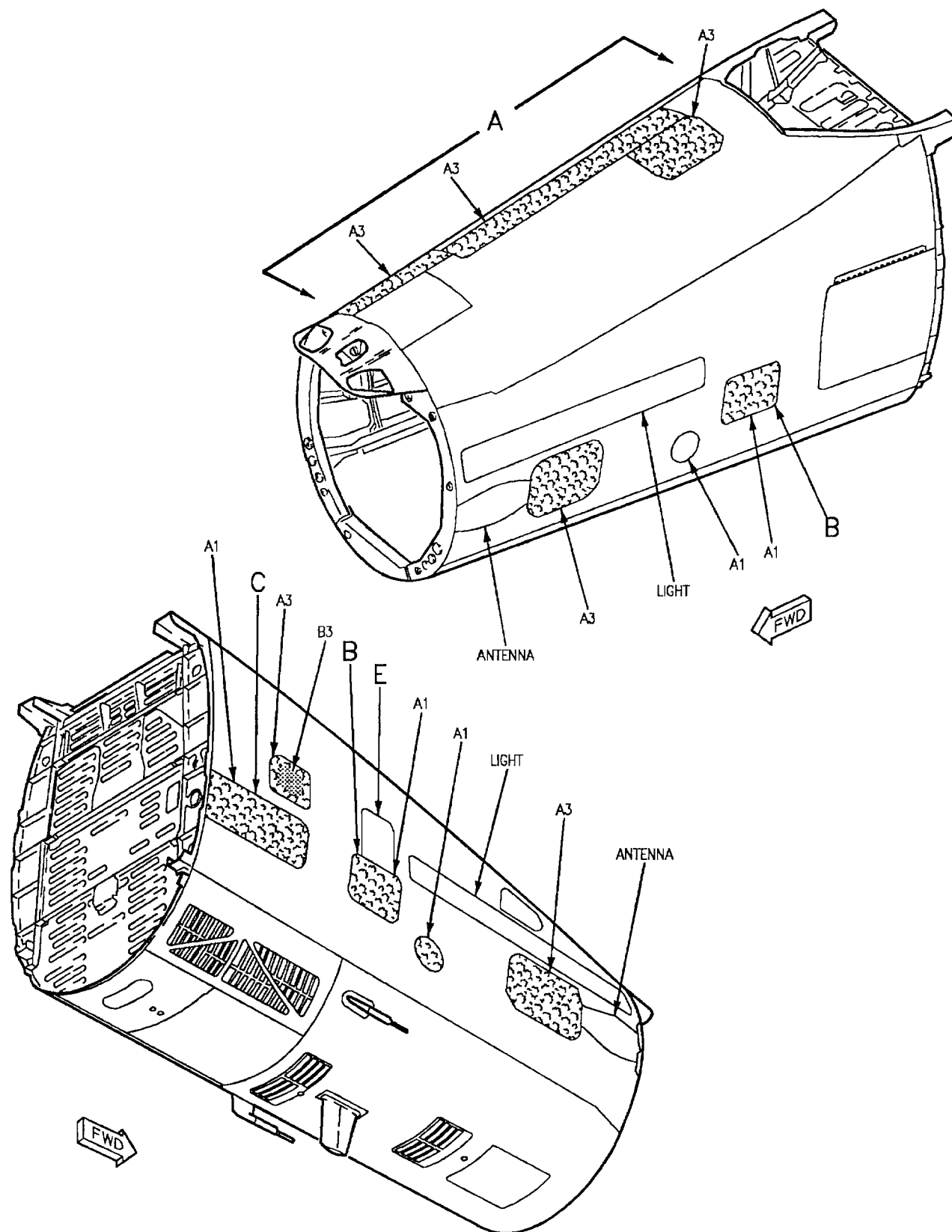
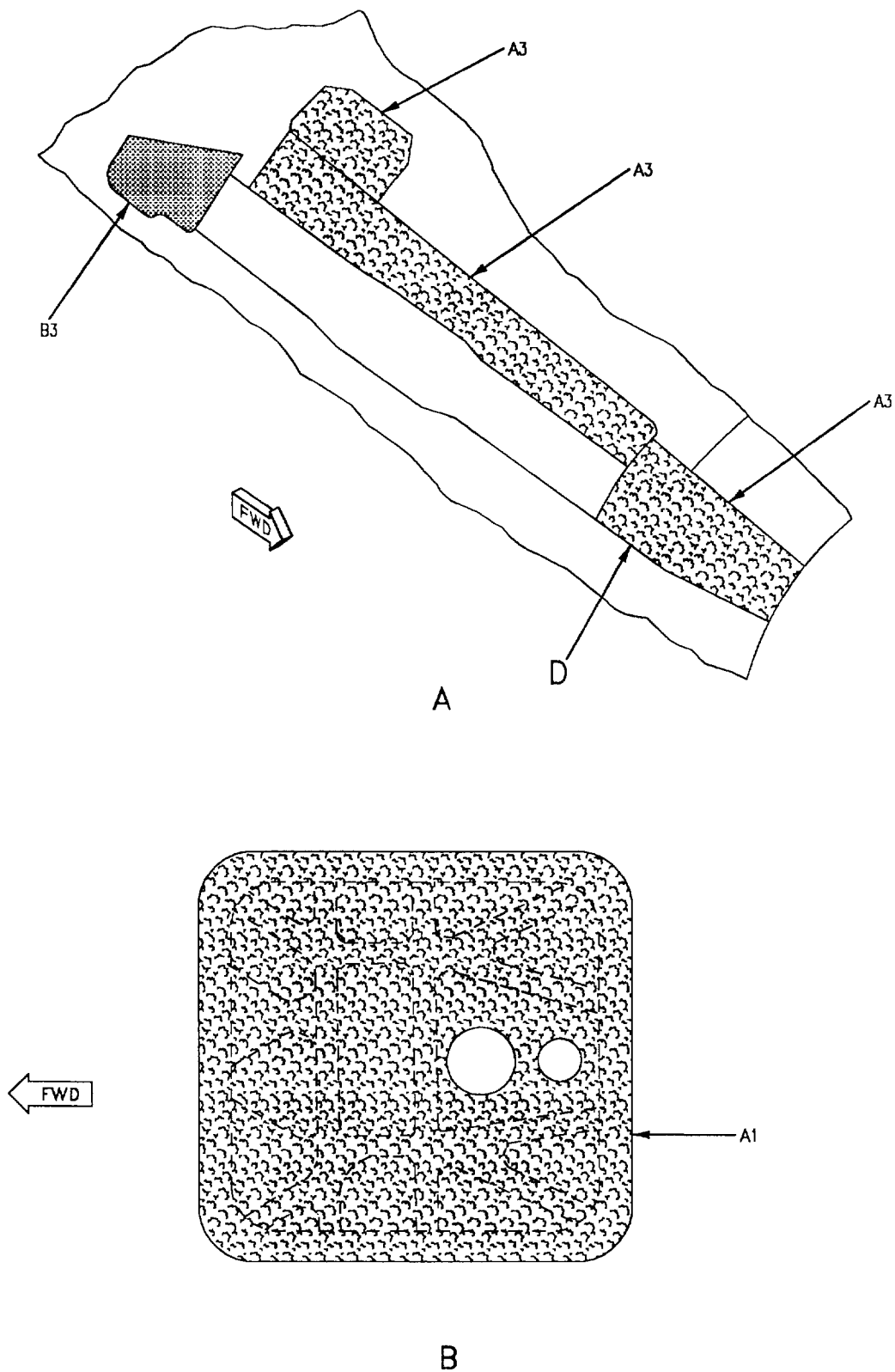


Figure 2. Repair Zones (Sheet 1)



B

161353 THRU 162477

18AC-SRM-221-(23-2)01-SCAN

Figure 2. Repair Zones (Sheet 2)

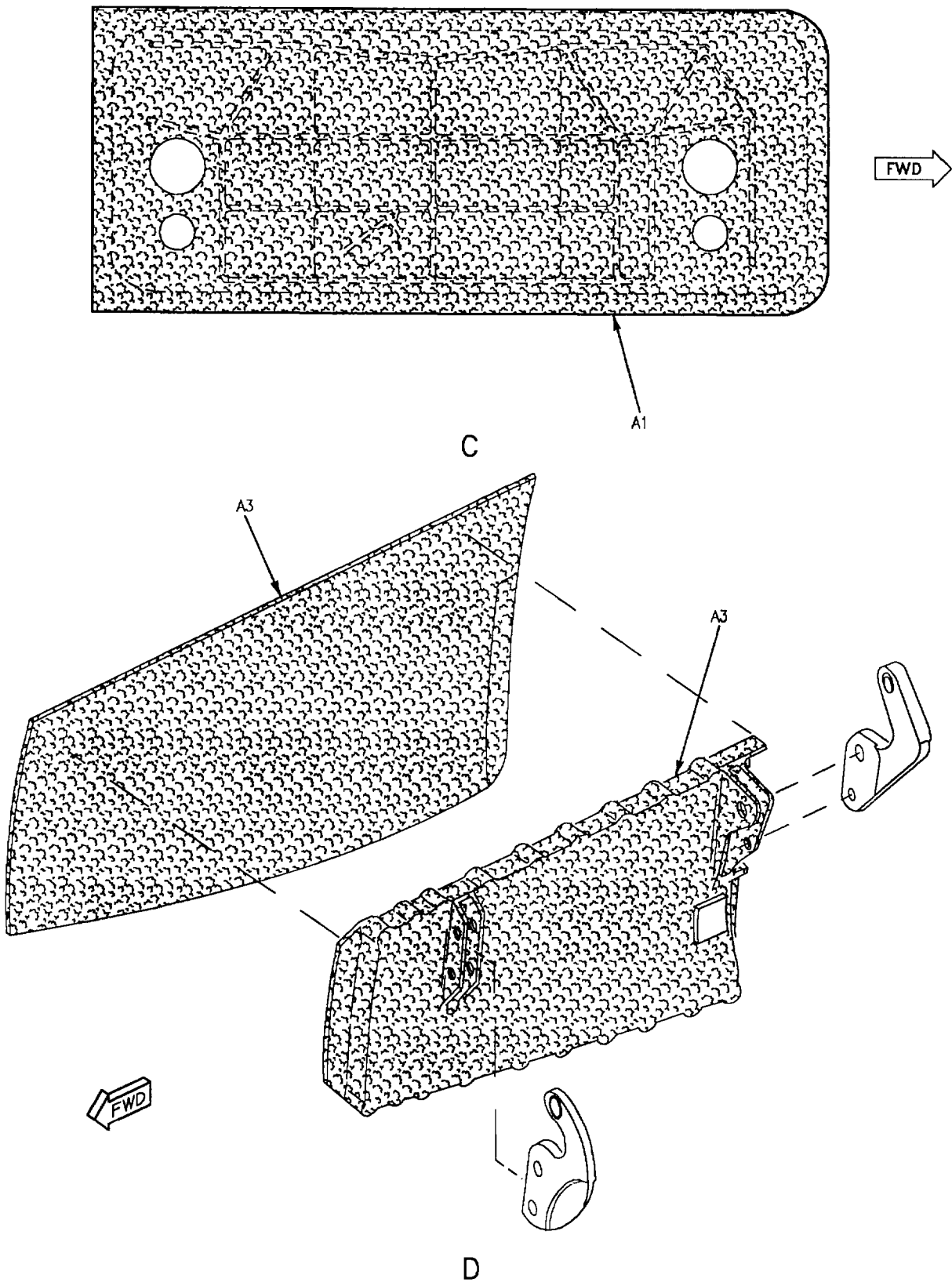
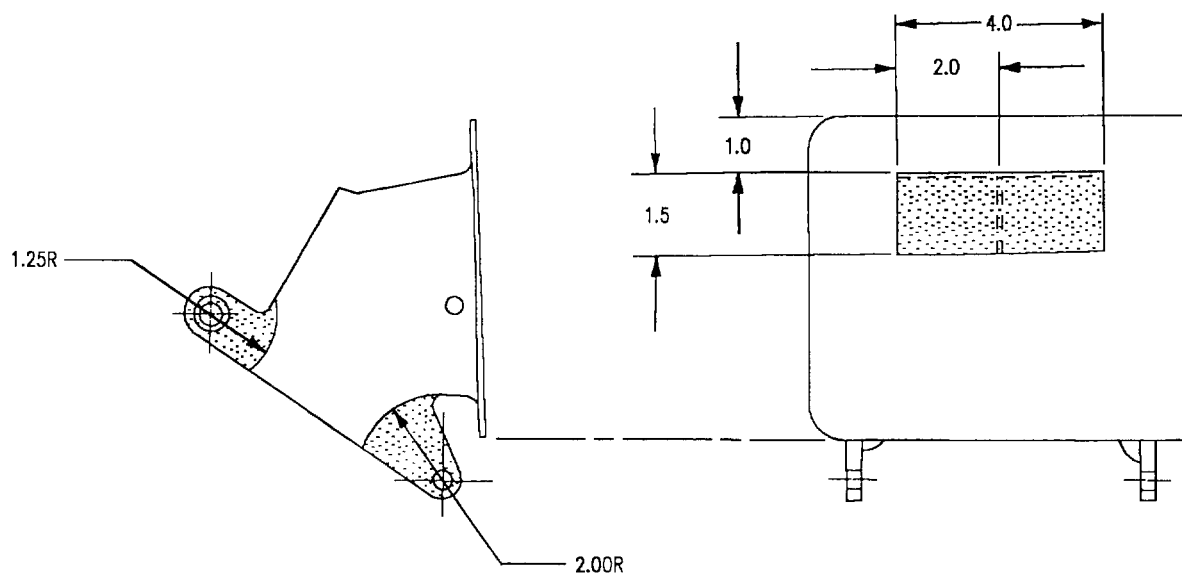


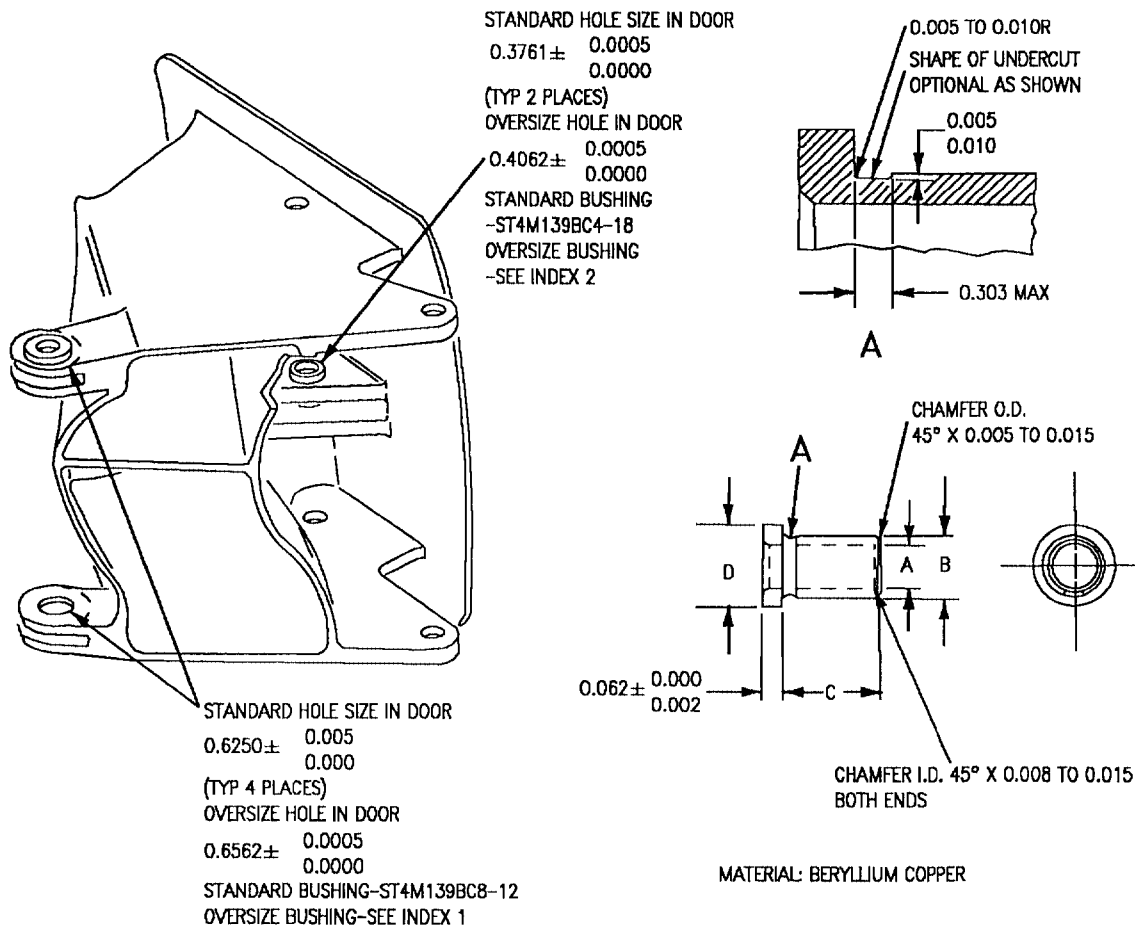
Figure 2. Repair Zones (Sheet 3)



DAMAGE TO SHADED AREA
REQUIRES ENGINEERING DISPOSITION

E

Figure 2. Repair Zones (Sheet 4)





OVERSIZE BUSHING INDEX	 A	B	C	D
1	0.4950 $+0.0000$ -0.0015	0.6583 $+0.0000$ -0.0004	0.1200 $+0.0050$ -0.0050	0.7500 $+0.0010$ -0.0010
2	0.2450 $+0.0000$ -0.0015	0.4072 $+0.0000$ -0.0005	0.1800 $+0.0050$ -0.0050	0.5000 $+0.0100$ -0.0100
LEGEND  UNDERSIZE HOLE WHEN FABRICATING TO ALLOW FOR LINE REAMING AFTER INSTALLATION IN DOOR.				

Figure 3. Door 74A732015, Bushing Replacement

14. REPLACEMENT.

15. Fastener attaching hardware is shown for covers, doors, and antenna radome. For form in place sealing (A1-F18AC-SRM-500, WP010 00). For replacement rivets attaching plate nuts, gang channels or receptacles not shown in figures 4 thru 12 (A1-F18AC-SRM-200, WP004 05). For finish system (A1-F18AC-SRM-500, WP018 00).

16. **COVER (DOOR 4).** Cover is interchangeable and spared with fastener attaching hardware bagged and attached with cover. Fastener attaching hardware is shown on figure 4. Replace receptacles and flare lock fasteners (NAVAIR 01-1A-8). For fasteners (A1-F18AC-SRM-420, FIG025 00).

17. DOOR 5.**Support Equipment Required**

Part Number or Type Designation	Nomenclature
DPP-50	Spring Resiliency Tester

Materials Required

None

a. Door is interchangeable on aircraft 161353 THRU 162477. Fasteners attaching latch are shown on figure 5. For fasteners (A1-F18AC-SRM-420, FIG027 00). Adjust bolt on latch until force required to unlatch door is 32 pounds, plus or minus 5 pounds using spring resiliency tester.

18. DOOR 8.**Support Equipment Required**

Part Number or Type Designation	Nomenclature
DPP-50	Spring Resiliency Tester

Materials Required

None

a. Door is interchangeable. Fastener attaching latch are shown on figure 6. For fasteners (A1-F18AC-

SRM-420, FIG029 00). Adjust bolt on latch until force required to unlatch door is 32 pounds, plus or minus 5 pounds using spring resiliency tester.

19. **COVER (DOOR 59).** Cover is interchangeable. Fastener attaching hardware is shown on figure 7. For fasteners (A1-F18AC-SRM-420, FIG024 00).

20. **COVER (DOOR 104).** Cover is interchangeable and spared with fastener attaching hardware bagged and attached with cover as a loose parts kit. Fastener attaching hardware is shown on figure 8. For fasteners (A1-F18AC-SRM-420, FIG024 00).

21. **COVER (DOOR 105).** Cover is interchangeable. Fastener attaching hardware is shown on figure 9. For fasteners (A1-F18AC-SRM-420, FIG024 00).

22. **COVER (DOOR 109).** Cover is interchangeable. Fastener attaching hardware is shown on figure 10. For fasteners (A1-F18AC-SRM-420, FIG024 00).

23. **COVER (DOOR 140).** Cover is interchangeable. Fastener attaching hardware is shown on figure 11. For fasteners (A1-F18AC-SRM-420, FIG024 00).

24. **ANTENNA RADOME.** Radome is interchangeable. Fastener attaching hardware is shown on figure 12. For fasteners (A1-F18AC-760-300, WP041 00 and WP042 00).

25. REMOVAL OF 74A315001-2019 ANGLE 161353 THRU 162414. See Figure 13.

a. Open door 8 (A1-F18AC-LMM-010).



When removing rivets care should be taken not to elongate holes.

b. Remove rivets attaching angle.

c. Plug holes with BRFS4AD rivet, two places.

d. Touch up finish system as required (A1-F18AC-SRM-500, WP018 00).

e. Close door 8 (A1-F18AC-LMM-010).

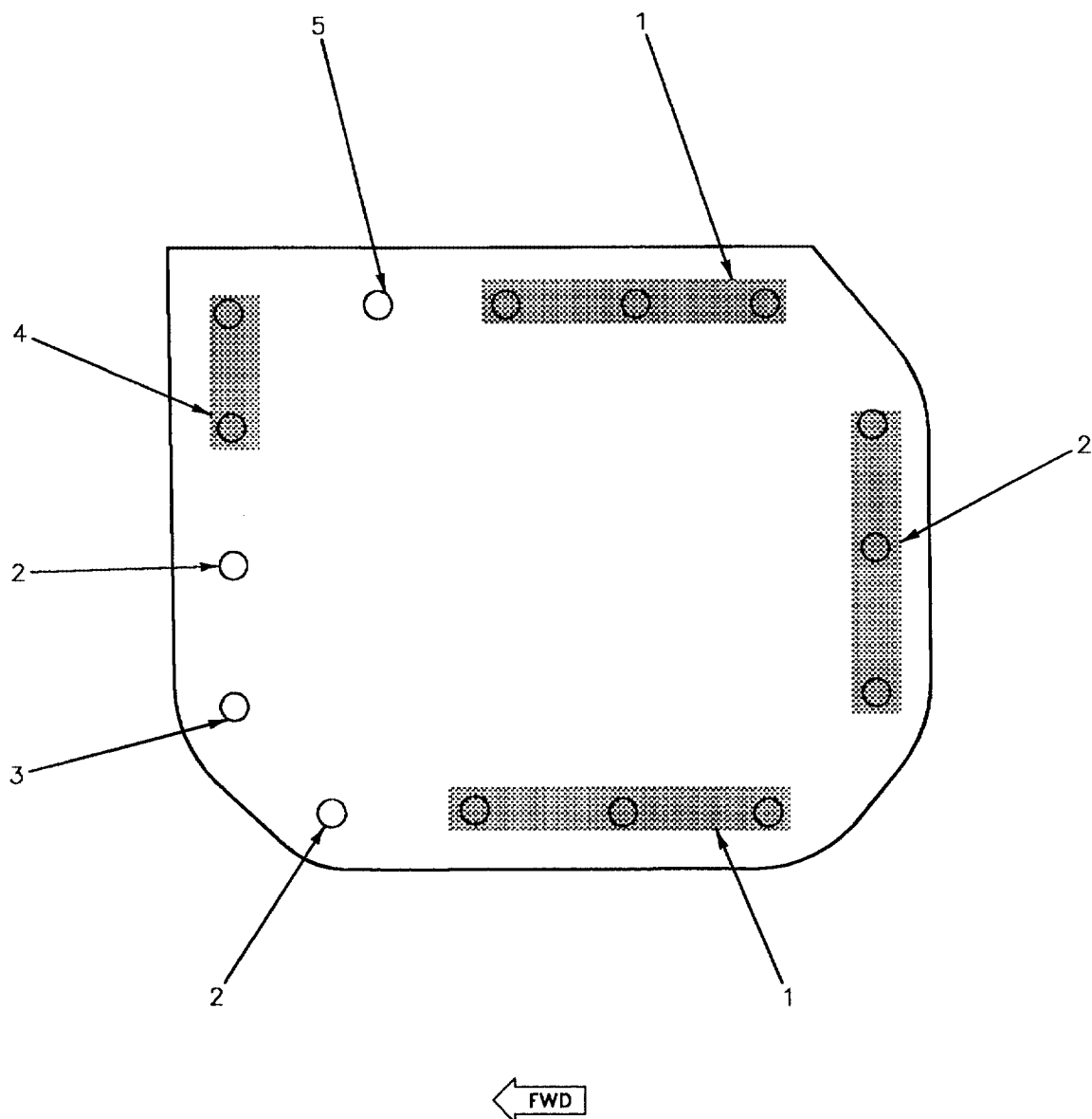


Figure 4. Cover (Door 4) Replacement (Sheet 1)













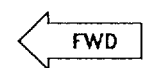
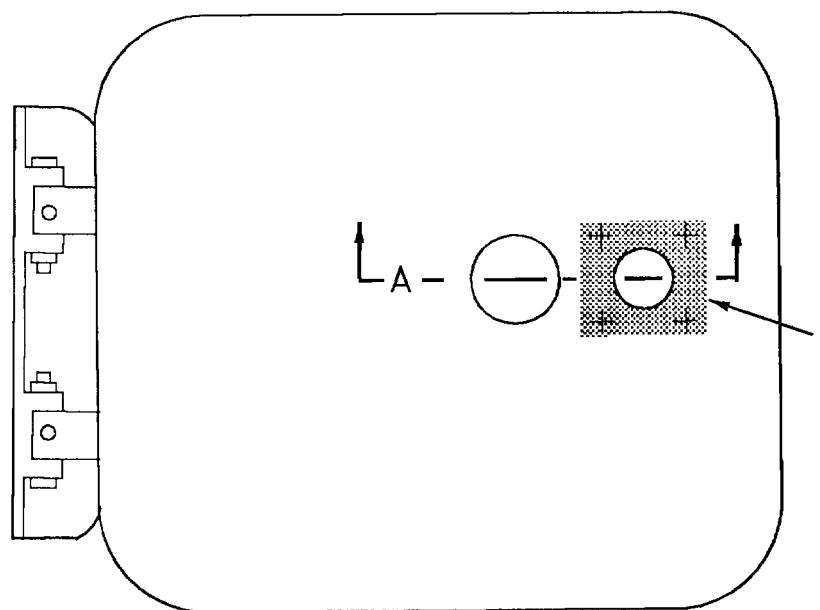
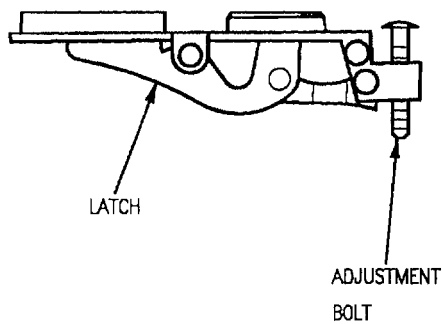
Idx No.	Eft		Nomenclature	Part Number
1			Receptacle 	1950-6-10-0
2			Receptacle 	1950-6-9-1
3			Receptacle 	1950-6-9-2
4			Receptacle 	1950-6-10-2
5			Receptacle 	1950-6-10-1
LEGEND				
 Hole diameter is 0.385 +0.008 -0.000.				
 Attached with BRFS4AD rivets.				

Figure 4. Cover (Door 4) Replacement (Sheet 2)



161353 THRU 162477



A

Figure 5. Door 5, Latch Replacement (Sheet 1)





Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20426AD4
LEGEND				
 Hole diameter is 0.128 +0.006 -0.000.				
 161353 THRU 1612477.				

Figure 5. Door 5, Latch Replacement (Sheet 2)

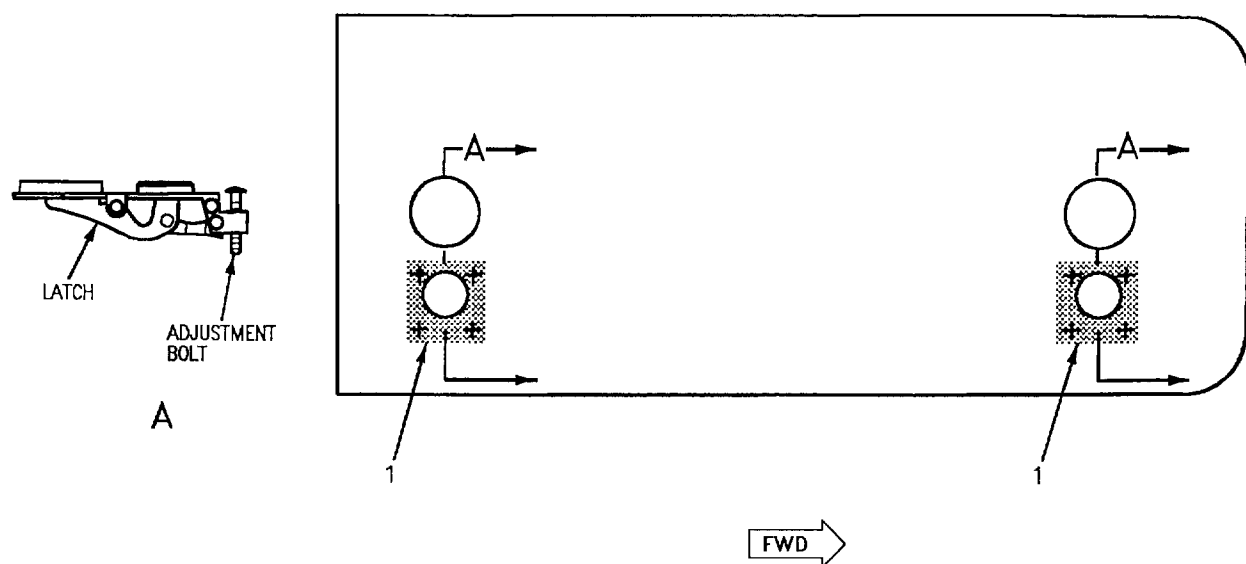


Figure 6. Door 8, Latch Replacement (Sheet 1)



Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20426AD4
LEGEND				
 Hole diameter is 0.128 +0.006 -0.000.				

Figure 6. Door 8, Latch Replacement (Sheet 2)

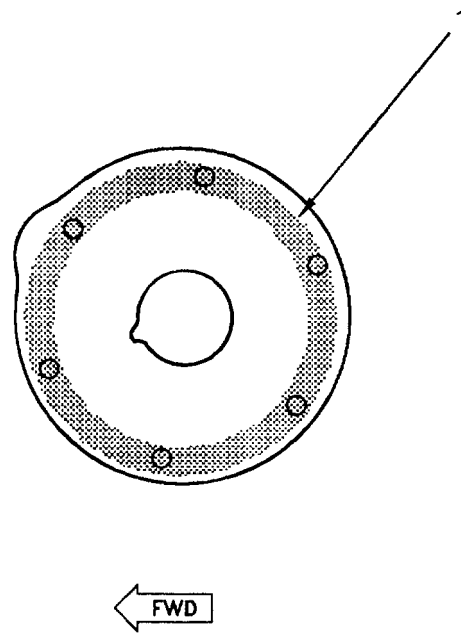


Figure 7. Cover (Door 59) Replacement (Sheet 1)



Idx No.	Eft		Nomenclature	Part Number
1			Plate Nut	MS21060L3
LEGEND				
 Hole diameter is 0.195 +0.007 -0.000 in door and 0.205 +0.007 -0.000 in structure.				

Figure 7. Cover (Door 59) Replacement (Sheet 2)

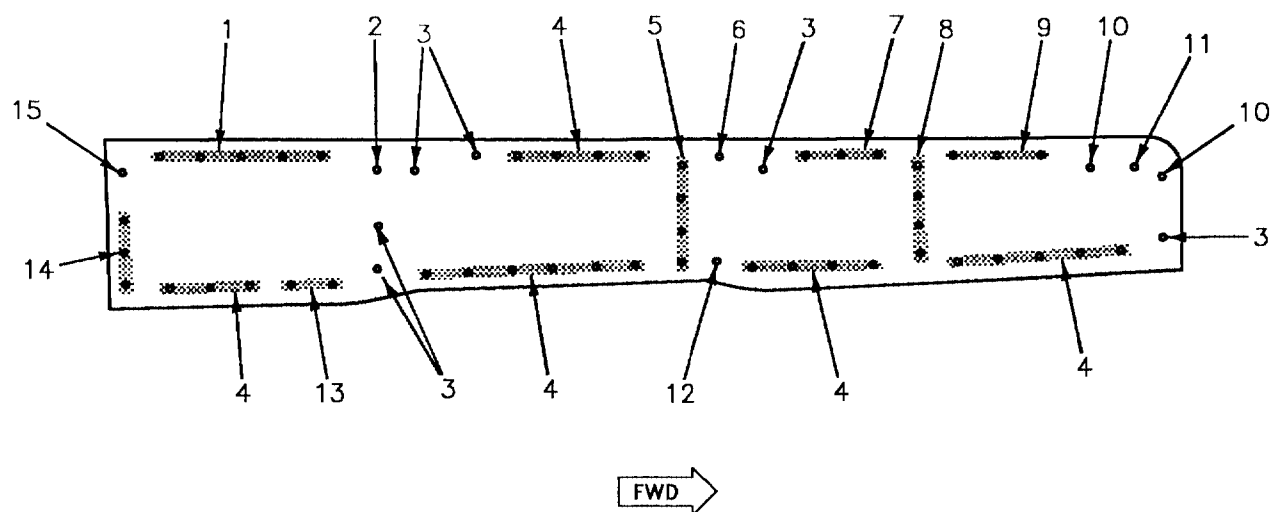


Figure 8. Cover (Door 104) Replacement (Sheet 1)

Idx No.	Eft		Nomenclature	Part Number
1			Gang Channel Filler	G14421-4-4-11 74A313135-2003
2			Plate Nut	F49069N4-2
3			Plate Nut	F49069N4-4
4			Gang Channel	G14421-6-4-11
5	 	 	Gang Channel Gang Channel	G14421-4-4F-9 74A313135-2013
6			Plate Nut	F29337-4-6
7			Gang Channel	G14421-6-4-10
8	 	 	Gang Channel Gang Channel	G14421-4-4F-8 74A313135-2009
9			Gang Channel	G14421-6-4-12
10			Plate Nut	F39668N4-1
11			Plate Nut	MS21055L4
12	 	 	Plate Nut Plate Nut	F49069N4-6 F29337-4-6
13	 	 	Gang Channel Gang Channel	G14421-6-4F-11 G14421-6-4-11
14	 	 	Gang Channel Gang Channel	G14421-4-4F-9 74A313135-2011
15	 	 	Plate Nut Plate Nut	F49069N4-4 F29337-4-4
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.255 +0.007 -0.000.</p> <p> 161353 THRU 161519.</p> <p> 161520 AND UP.</p> <p> 161353 THRU 162441.</p> <p> 162442 AND UP.</p> <p> Attached with CSR902B-3-4 rivets.</p> <p> 161353 THRU 162886.</p> <p> 162887 AND UP.</p>				

Figure 8. Cover (Door 104) Replacement (Sheet 2)

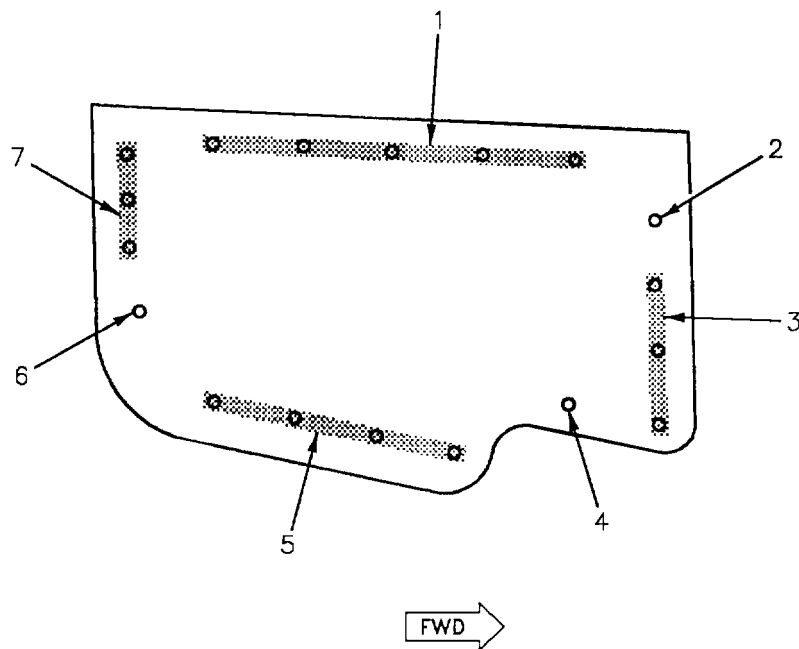


Figure 9. Cover (Door 105) Replacement (Sheet 1)









Idx No.	Eft		Nomenclature	Part Number
1			Gang Channel	G14421-4-4-11
2			Plate Nut	F39668N4
3			Gang Channel	G14421-1-4-11
4			Plate Nut	F49069N4-4
5			Gang Channel	G14421-4-4-10
6			Plate Nut	NS103074-048-2
7			Gang Channel	G14421-4-4-8
LEGEND				
 Hole diameter is 0.255 +0.007 -0.000.				

Figure 9. Cover (Door 105) Replacement (Sheet 2)

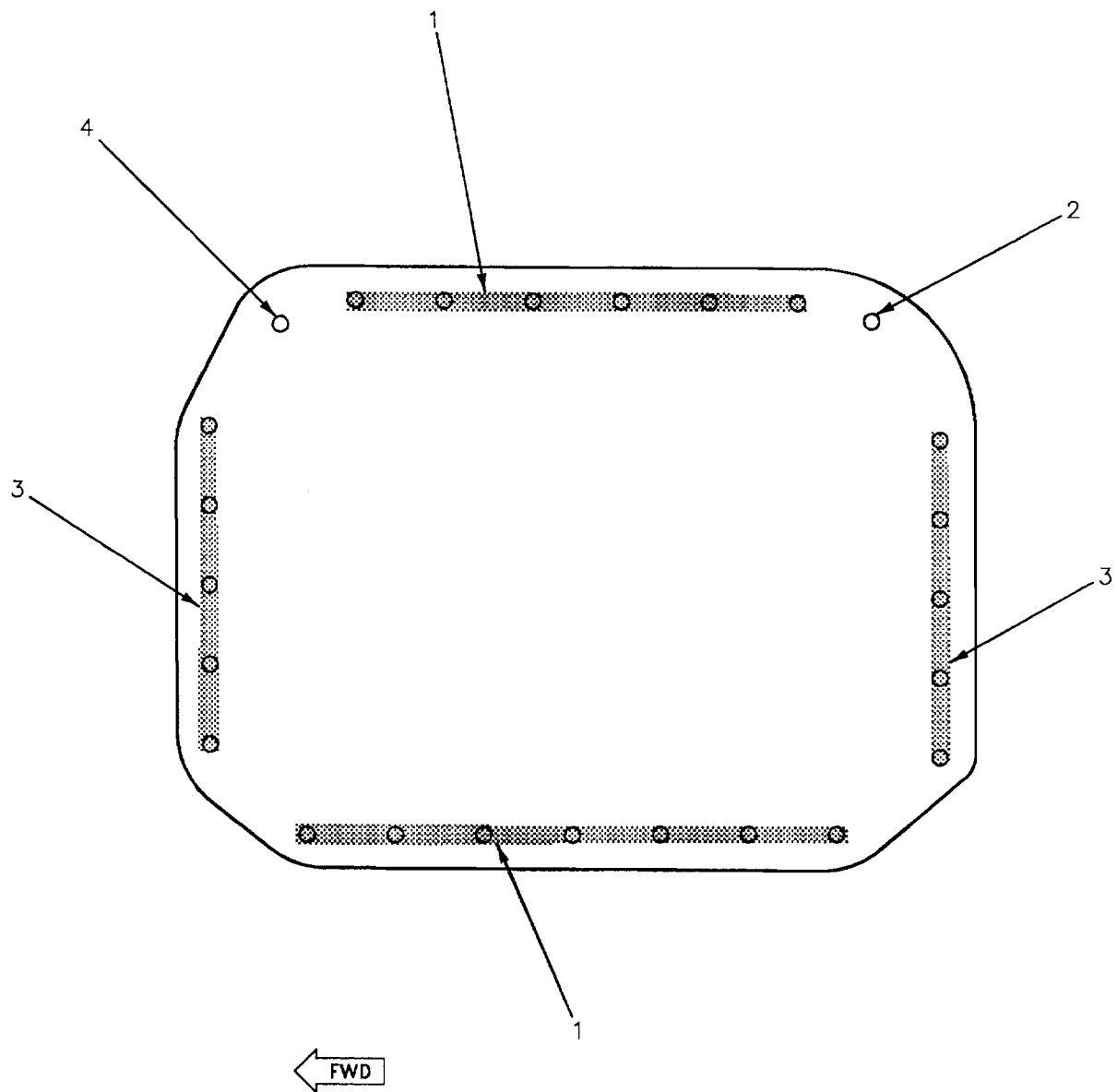


Figure 10. Cover (Door 109) Replacement (Sheet 1)











Idx No.	Eft		Nomenclature	Part Number
1			Gang Channel	G14421-2-4-11
2	 	 	Plate Nut Plate Nut	F49069N4-2 F39879N4-2
3			Gang Channel	G14421-2-4-10
4			Plate Nut	F49069N4-2
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.255 +0.007 -0.000.</p> <p> 161353 THRU 161944.</p> <p> 161945 AND UP.</p>				

Figure 10. Cover (Door 109) Replacement (Sheet 2)

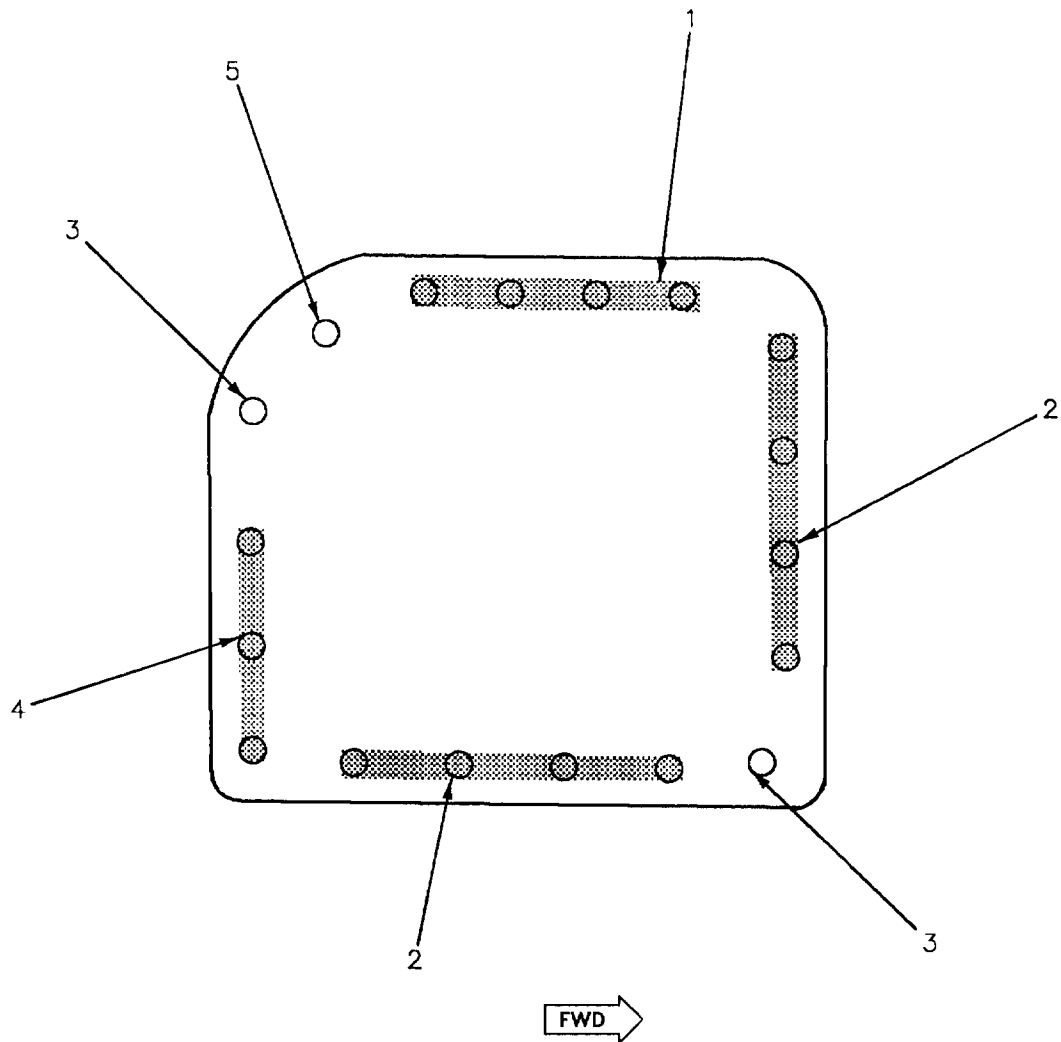


Figure 11. Cover (Door 140) Replacement (Sheet 1)













Idx No.	Eft		Nomenclature	Part Number
1			 Gang Channel	G14421-2-4-10
2			 Gang Channel	G14421-2-4-12
3			 Plate Nut	F39668N4
4			 Gang Channel	G14421-1-4-12
5			 Plate Nut	F39879N4-2
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.255 +0.007 -0.000.</p> <p> Attached with NAS1097AD rivets, length to be determined on installation.</p>				

Figure 11. Cover (Door 140) Replacement (Sheet 2)

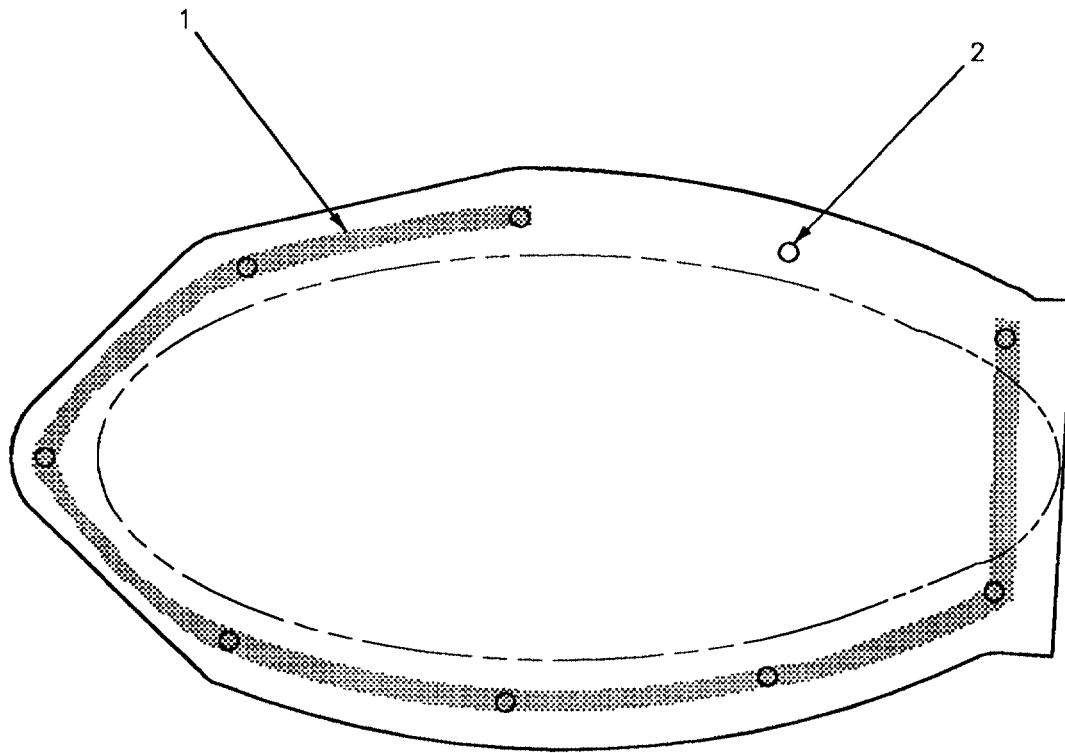


Figure 12. Antenna Radome Replacement (Sheet 1)







Idx No.	Eft		Nomenclature	Part Number
1			 Plate Nut	F50339-3-1
2			 Plate Nut	F50403-3-1
LEGEND				
 Hole diameter is 0.195 +0.007 -0.000.				
 Attached with NAS1097U3 rivets, length to be determined on installation.				

Figure 12. Antenna Radome Replacement (Sheet 2)

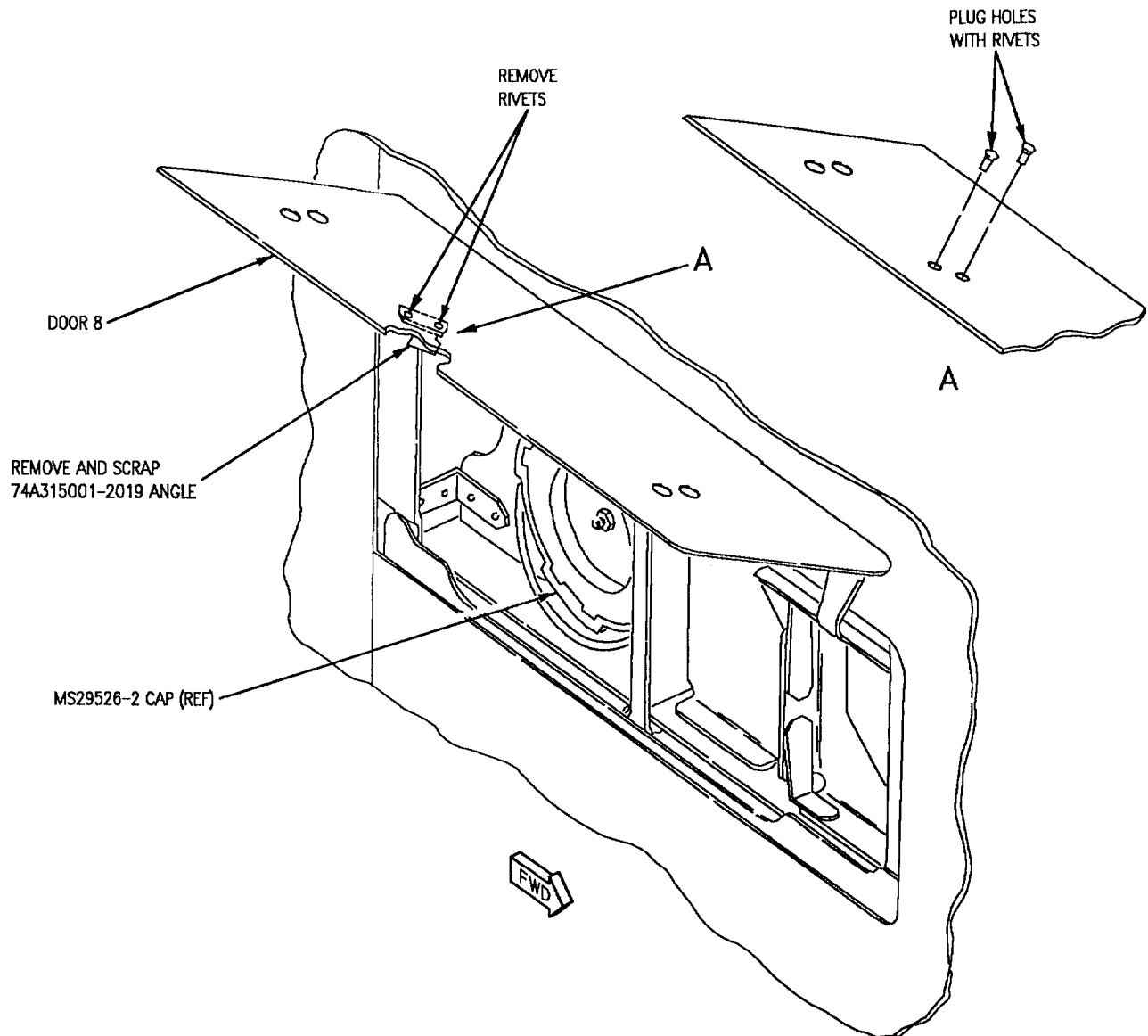


Figure 13. Removal of 74A315001-2019 Angle

ORGANIZATIONAL MAINTENANCE
STRUCTURE REPAIR**DOOR 3**

Reference Material

Structural Hardware	NAVAIR 01-1A-8
Aircraft Weapons Systems Cleaning and Corrosion Control	NAVAIR 01-1A-509
Structure Repair, General Information	A1-F18AC-SRM-200
Introduction	WP002 00
EMI Electrical Bonding Strip Contact Verification	WP004 25
Adhesive, Cement, and Sealant; Preparation and Application	WP011 00
Structure Repair, Typical Repair	A1-F18AC-SRM-250
Aluminum Sheet, Free of Structure and Land Areas	WP031 00
Aluminum and Titanium Sheet, Formed Structure	WP033 00
Aluminum Sheet Edge Repair	WP034 00
Aluminum Sheet Repairs, Across Structure and Lands	WP036 00
Blending	WP038 00
Aircraft Corrosion Control	A1-F18AC-SRM-500
Corrosion Inspection and Removal	WP005 00
Chemical Treatment	WP008 00
Nose Barrel Finish System and Markings	WP018 00
Form In Place Sealing	WP010 00
Structure Illustrated Parts Breakdown, Forward Fuselage	A1-F18AC-SRM-420
Door, Access - Fuselage Nose Section, Instl of (Gun Bay)	WP026 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Piping Installation	A1-F18AC-PIM-000
Nose Barrel, Gun Bay, Door 3	WP005 01
Wiring Diagrams	A1-F18AC-WDM-000
Nose Barrel Forward	L004 00
Nose Barrel Aft	L008 00

Alphabetical Index

Subject	Page No.
Damage Evaluation	2
Negligible Damage	2
Repairable Damage	2
Repairs	3
Permanent Repairs	3
Cracks	3
Dents	4
Door 3 Fastener Hole Repair	4
Edge	4
Holes	3
Scratches, Nicks, Gouges, or Corrosion	3

Alphabetical Index (Continued)

Subject	Page No.
Replacement	39
Covers, 74A313012 and 74A315136	39
Base, 74A880646	39
Door 3	39
Installation	39
Removal	39
EMI Electrical Bonding Strips	39
Pitot Static Probe Cover Receptacles	39
Screen, 74A313028	41
Screen, 74A313040	42
Screen, 74A313174	41
Screen, 74A313211	42

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 161	-	Additional Drain Holes In Access Door 3	1 Aug 92	NAVY ISSUED N25-88

1. **DAMAGE EVALUATION.** See figures 1 and 2.

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. Types of materials used are shown on figure 1. Repair zones are shown on figure 2. Allowable damage limits within repair zones are listed in tables 1 and 2. Damage not listed or exceeding following limits require depot engineering disposition.

3. **NEGLIGIBLE DAMAGE.** Negligible damage is damage that may be allowed to exist as is. However, preventive maintenance, for temporary corrosion arrestment, should be done to scratches (NAVAIR 01-1A-509). Types and limits of damage are listed below and in table 1. Figure and index numbers in table 1 coincide with figure and index numbers in material index.

a. Scratches are not allowed within one diameter from edge of any hole.

b. Smooth dents only, effective diameter at least 20 times depth.

c. Damage to screens not more than 1 inch length or diameter.

4. **REPAIRABLE DAMAGE.** Types and limits of damage are listed below and in table 2. Figure and index numbers in table 2 coincide with figure and index numbers in material index, figure 1.

NOTE

Limits in table 2 apply after blending damage.

a. Scratches.

(1) Any scratches within one diameter of any hole must be blended out. Minimum blend out is one diameter from edge of any hole.

(2) Scratches to be blended out with diameter, or width, at surface at least 20 times the depth.

b. Nicks, gouges, and corrosion to be blended out with diameter, or width, at surface at least 20 times the depth.

c. Cracks. All cracks must be repaired.

d. Holes.

(1) Damage in areas free of structure and lands must have edge of cleanup hole at least eight repair fastener diameters from any land, internal structure or existing row of fasteners.

(2) Damage to lands, overstructure, only one repair per land.

e. Dents exceeding the limits in table 1 must be repaired.

f. Damage to screens exceeding negligible damage require screen replacement.

5. REPAIRS.

6. Types of repairs are temporary, one-time flight, permanent, critical area, alternate and typical. Repair type definitions are in structure repair terms (A1-F18AC-SRM-200, WP002 00).

7. PERMANENT REPAIRS.

8. **Scratches, Nicks, Gouges, or Corrosion.** Blend scratches, nicks, gouges, or corrosion (A1-F18AC-SRM-250, WP038 00). If after blending, the damage limits of table 2 are exceeded, repair aluminum sheet as below. Refinish blended areas (A1-F18AC-SRM-500, WP018 00).

a. Scratches - make crack or edge repairs.

b. Nicks, gouges, or corrosion - make hole or edge repair.

9. Cracks.

a. In repair zone A3, repair cracks free of structure or land areas in aluminum (A1-F18AC-SRM-250, WP031 00).

(1) Rout out crack in repair zone A3.

(2) Install lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

b. In repair zones A2 and A3, repair cracks across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

(2) Make repairs.

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zone A3, repair cracks in aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) Install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

10. Holes.

a. In repair zone A3, repair holes free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00).

(1) Cut out damage.

(2) Install a type one flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

b. In repair zones A2 and A3, repair holes across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

(2) Make repairs.

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zone A3, repair holes in aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) Install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

11. **Edge.** In repair zones A2 and A3, repair edge damage in aluminum sheet (A1-F18AC-SRM-250, WP034 00).

a. Cut out damage.

b. Select and install repair patch.

(1) Corner Damage to Lands.

(2) Corner Damage to Lands and Bays.

(3) Edge Damage to Lands.

(4) Edge Damage to Lands and Bays.

(5) Full Width Damage to End.

c. Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

12. **Dents.**

a. In repair zone A3, repair dents free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00).

(1) Cut out damage.

(2) Install a type one flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

b. In repair zones A2 and A3 repair dents across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

(2) Make repairs.

(a) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zone A3, repair dents in aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) Install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

13. **Door 3 Fastener Hole Repair.** See figure 3. This repair applies to the four milson fastener holes located on L/R 74A313210 aluminum louver casting. Repairs to remaining milson fastener holes require a depot engineering disposition.

Support Equipment Required

Part Number or Type Designation	Nomenclature
74D110325-1001	Aircraft Structure Repair Tool Kit
-	Scriber
-	C-Clamps

Materials Required

Specification or Part Number	Nomenclature
MIL-S-83430, CLASS A-1/2	Sealing Compound
TT-I-735	Isopropyl Alcohol
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
CSR904B3-()	Rivet (as required)
BRFS5AD-()	Rivet (as required)

Materials Required (Continued)

Specification or Part Number	Nomenclature
7075-T6 Alclad, 0.125 Sheet (fabricate)	Filler (4 required)
7075-T6 Alclad, 0.090 Sheet (fabricate)	Retainer
7075-T6 Alclad, 0.080 Sheet (fabricate)	Doubler
1944-6	Retainer Ring (7 required)
TT-P-1757, COMPL, COLOR Y	Primer Coating
MIL-S-81733, TYPE 2-2	Sealing Compound, Sealing and Coating Compound, Corrosion Resistant
MIL-S-8802, TYPE 2, CLASS A-1/2	Sealing Compound, Temperature Resistant

a. Remove door 3 per paragraph 14, this work package.

b. Remove milson door fastener seven places, detail A.

c. Remove form in place seal from repair area using a plastic scraper.

NOTE

Remove enough rivets forward of Y179.100 to allow retainer to be positioned away from door and EMI leaf for cutting.

d. Remove CSR904B3 rivets securing 74A313040 retainer and 74A313211 (EMI leaf) to door.

e. Cut and remove section of 74A313040 retainer at Y178.200, detail A.

f. Remove EMI leaf.

g. Drill out the two aft BRFS5AD rivets at Y179.100 securing 74A313055 skin to 74A313210 louver.

h. Fabricate filler from 7075-T6 alclad, 0.125 inch sheet, to the dimensions shown on details B and C.

i. Locate filler on door by inserting milson fastener through door and filler.

j. Clamp in place and scribe filler pattern on door, detail D.

k. Remove clamp, milson fastener, and filler from door.

l. Rout out door material along scribed line maintaining 0.030 inch maximum gap between filler and door, detail D.

m. Fabricate mold line (doubler) from 7075-T6 alclad, 0.080 inch sheet, per steps below and detail E:

(1) Position doubler on door aligning centerline of milson fastener hole location in door to centerline of milson fastener hole location in doubler, detail F.

(2) Maintain 0.30 inch edge distance from the two rivet holes in door located at Y179.100, detail E.

NOTE

74A313210 louver casting may require blending if aft surface of doubler does not seat properly. For blending (A1-F18AC-SRM-250, WP038 00).

(3) Position fillers in routed holes and clamp assembly in place.

(4) Back drill 0.161 +0.005 -0.000 inch diameter hole from door into doubler, two places at Y179.100.

(5) Back drill 0.385 +0.008 -0.000 inch diameter milson fastener hole from filler into doubler, four places.

(6) Remove clamps, fillers and doubler.

(7) Locate and drill 0.161 +0.005 -0.000 inch diameter rivet holes, 23 places in doubler, maintaining four diameters center to center spacing, details E and G.

(8) Countersink holes to flushness requirements of fastener.

(9) Deburr holes in doubler.

n. Fabricate retainer from 7075-T6 alclad, 0.090 inch sheet, per steps below and detail H:

NOTE

The 25.00 inch length dimension given on detail H may vary depending on where 74A313040 retainer was cut in step e.

(1) Trim retainer as required to maintain 0.060 +0.020 -0.030 inch edge distance from existing 74A313040 and 74A313211 retainers.

(2) Position EMI leaf on door.

(3) Position retainer over EMI leaf aligning centerline of milson fastener hole location in door to centerline of milson fastener hole location in doubler, detail K.

(4) Insert fillers in routed holes.

(5) Locate doubler in position and clamp assembly in place.

(6) Back drill 0.098 +0.005 -0.000 inch diameter hole from door into retainer, two places, detail H.

(7) Back drill 0.161 +0.005 -0.000 inch diameter hole from doubler into door and retainer, 11 places, details A and H.

(8) Back drill 0.385 +0.008 -0.000 inch diameter milson fastener hole from doubler into retainer, four places, detail H.

(9) Back drill 0.385 +0.008 -0.000 inch diameter milson fastener hole from door into retainer, three places, detail H.

(10) Loosen clamps and remove retainer and EMI leaf.

(11) Retighten clamps.

(12) Back drill 0.161 +0.005 -0.000 inch diameter hole from doubler into door, 13 places, details A and E.

(13) Remove clamps, fillers, and doubler.

(14) Spotface the aft three holes in retainer, detail J.

(15) Countersink rivet holes in retainer to the flushness requirement of fastener, 13 places, details H and L.

(16) Countersink rivet holes in door to the flushness requirement of fastener, 13 places, detail A.

(17) Deburr holes in door and retainer.

o. Locate and drill 0.098 +0.005 -0.000 inch diameter hole, 0.50 inch forward of Y178.200 into 74A313040 retainer and door, detail A.

p. Countersink hole to the flushness requirement of fastener in door and retainer.

q. Deburr hole.



Isopropyl Alcohol, TT-I-735

2

r. Clean repair area with clean cheesecloth moistened with Isopropyl Alcohol.

s. Prepare surfaces for electrical bonding (A1-F18AC-LMM-000).

t. Apply finish system to doubler and mold line area of door as required (A1-F18AC-SRM-500, WP018 00).



Sealing Compound (Faying Sealant),
MIL-S-83430, Class A-1/2

8

u. Fay surface seal area on doubler contacting door and filler. For sealing preparation and application (A1-F18AC-SRM-200, WP011 00).

v. Butt gap seal area between filler and routed hole in door, detail M. For sealing preparation and application (A1-F18AC-SRM-200, WP011 00).

NOTE

Bottom row of rivets in doubler must be installed first to provide access to vibration drive rivets flush in countersinks in door.

w. Position doubler on door and wet install bottom row of BRFS5AD rivets attaching doubler to door, 14 places.



Zinc Chromate Primer Coating, Low Moisture Sensitivity, TT-P-1757, Type I

14

x. Apply TT-P-1757 primer to all faying surfaces.

NOTE

Rivets must be flush or below retainer.

aa. Wet install BRFS5AD rivets in doubler, door and retainer with MIL-S-81733 Type II or MIL-S-8802 Type II, Class A sealing compound, 11 places, detail A.

ab. Wet install CSR904B3 rivets in door and retainers with MIL-S-81733 Type II or MIL-S-8802 Type II, Class A sealing compound, detail A.

ac. Fillet seal EMI leaf and retainer interface, details M, N, and P. For sealing preparation and application (A1-F18AC-SRM-200, WP011 00).

ad. Fillet seal retainer and door interface, details M, N, and P. For sealing preparation and application (A1-F18AC-SRM-200, WP011 00).

ae. Butt gap seal the 0.060 inch edge distance between fabricated retainer, 74A313040 retainer and 74A313211 retainer, detail A.

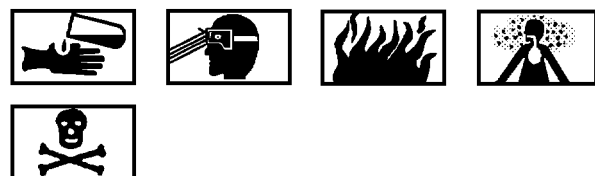
af. Install milson door fasteners, seven places, detail A.

ag. Install door 3 per paragraph 14, this work package.

ah. Install form in place seal on structure (A1-F18AC-SRM-500, WP010 00).

ai. Verify electrical bonding strip contact (A1-F18AC-SRM-200, WP004 25).

aj. Apply finish system as required (A1-F18AC-SRM-500, WP018 00).



Sealing Compound, MIL-S-81733, Type 2-2 15



Sealing Compound, MIL-S-8802, Type 2, Class A-1/2 12

NOTE

Keep EMI strip, spring fingers clean.

y. Apply MIL-S-81733 Type II or MIL-S-8802 Type II, Class A sealing compound to both sides of EMI strip and mating surface of door sill. For preparation and application of sealing compound (A1-F18AC-SRM-200, WP011 00).

z. While sealant is still wet, install EMI strip, 3M394-6 retainer rings, and retainer on door, detail A.

Table 1. Negligible Damage Limits

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 1 (1)	Skin Zone A2	0.125	0.002	0.002	100%		
		0.056	0.002	0.002	100%		5%
	Zone A3	0.125	0.002	0.002	100%		
		0.068	0.002	0.002	100%	0.034	N/A
		0.056	0.002	0.002	100%	0.028	N/A
Fig 1 (2)	Base Zone A3		0.002	0.002	100%		

Table 1. Negligible Damage Limits (Continued)




























Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 1 (4)	Skin	0.160	0.002	0.002	100%		
	Zone A3	0.125	0.002	0.002	100%		
	Zone A2	0.110	0.002	0.002	100%		
	Zone A3	0.056	0.002	0.002	100%	0.028	
Fig 1 (5)	Former Zone A3	0.063	0.002	0.002	100%	0.016	N/A
Fig 1 (6)	Former Zone A3		0.002	0.002	100%	0.016	N/A
Fig 1 (7)	Angle Zone A3	0.032	0.002	0.002	100%	0.016	N/A
Fig 1 (8)	Former Zone A3		0.002	0.002	100%		N/A
Fig 1 (10)	Former Zone A3		0.002	0.002	100%	0.016	N/A
Fig 1 (11)	Bracket Zone A3	0.080	0.002	0.002	100%	0.020	N/A
Fig 1 (12)	Angle Zone A3	0.040	0.002	0.002	100%		N/A
Fig 1 (13)	Former Zone A3		0.002	0.002	100%		N/A
Fig 1 (14)	Support Zone A3	0.032	0.002	0.002	100%		N/A
Fig 1 (15)	Plate Zone A3	0.050	0.002	0.002	100%	0.025	N/A
Fig 1 (16)	Sill Zone A3	0.063	0.002	0.002	100%	0.032	N/A
Fig 1 (17)	Former Zone A3		0.002	0.002	100%		N/A
Fig 1 (18)	Tee Zone A3		0.002	0.002	100%		N/A
Fig 1 (19)	Sill Zone A3		0.002	0.002	100%		N/A
Fig 1 (20)	Former Zone C1	0.063	0.002	0.002	100%	0.031	5%

Table 2. Repairable Damage Limits After Blending

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Corrosion	
				Depth	Area	Depth	Area
Fig 1 (1)	Skin Zone A2	0.125	0.025	0.025	15%	0.025	15%
		0.056	0.011	0.011	15%	0.011	15%
	Zone A3	0.125	0.025	0.025	15%	0.025	15%
		0.068	0.014	0.014	15%	0.014	15%
		0.056	0.011	0.011	15%	0.011	15%
Fig 1 (2)	Base Zone A3		0.015	0.015	15%	0.015	15%
Fig 1 (4)	Skin Zone A3	0.160	0.022	0.022	15%	0.022	15%
	Zone A2	0.125	0.025	0.025	15%	0.025	15%
	Zone A3	0.110	0.022	0.022	15%	0.022	15%
		0.056	0.011	0.011	15%	0.011	15%
Fig 1 (5)	Former Zone A3	0.063	0.013	0.013	15%	0.013	15%
Fig 1 (6)	Former Zone A3		0.013	0.013	15%	0.013	15%
Fig 1 (7)	Angle Zone A3	0.032	0.006	0.006	15%	0.006	15%
Fig 1 (8)	Former Zone A3		0.013	0.013	15%	0.013	15%
Fig 1 (10)	Former Zone A3		0.013	0.013	15%	0.013	15%
Fig 1 (11)	Bracket Zone A3	0.080	0.016	0.016	15%	0.016	15%
Fig 1 (12)	Angle Zone A3	0.040	0.008	0.008	15%	0.008	15%
Fig 1 (13)	Former Zone A3		0.013	0.013	15%	0.013	15%
Fig 1 (14)	Support Zone A3	0.032	0.006	0.006	15%	0.006	15%
Fig 1 (15)	Plate Zone A3	0.050	0.010	0.010	15%	0.010	15%
Fig 1 (16)	Sill Zone A3	0.063	0.0126	0.0126	15%	0.0126	15%
Fig 1 (17)	Former Zone A3		0.013	0.013	15%	0.013	15%

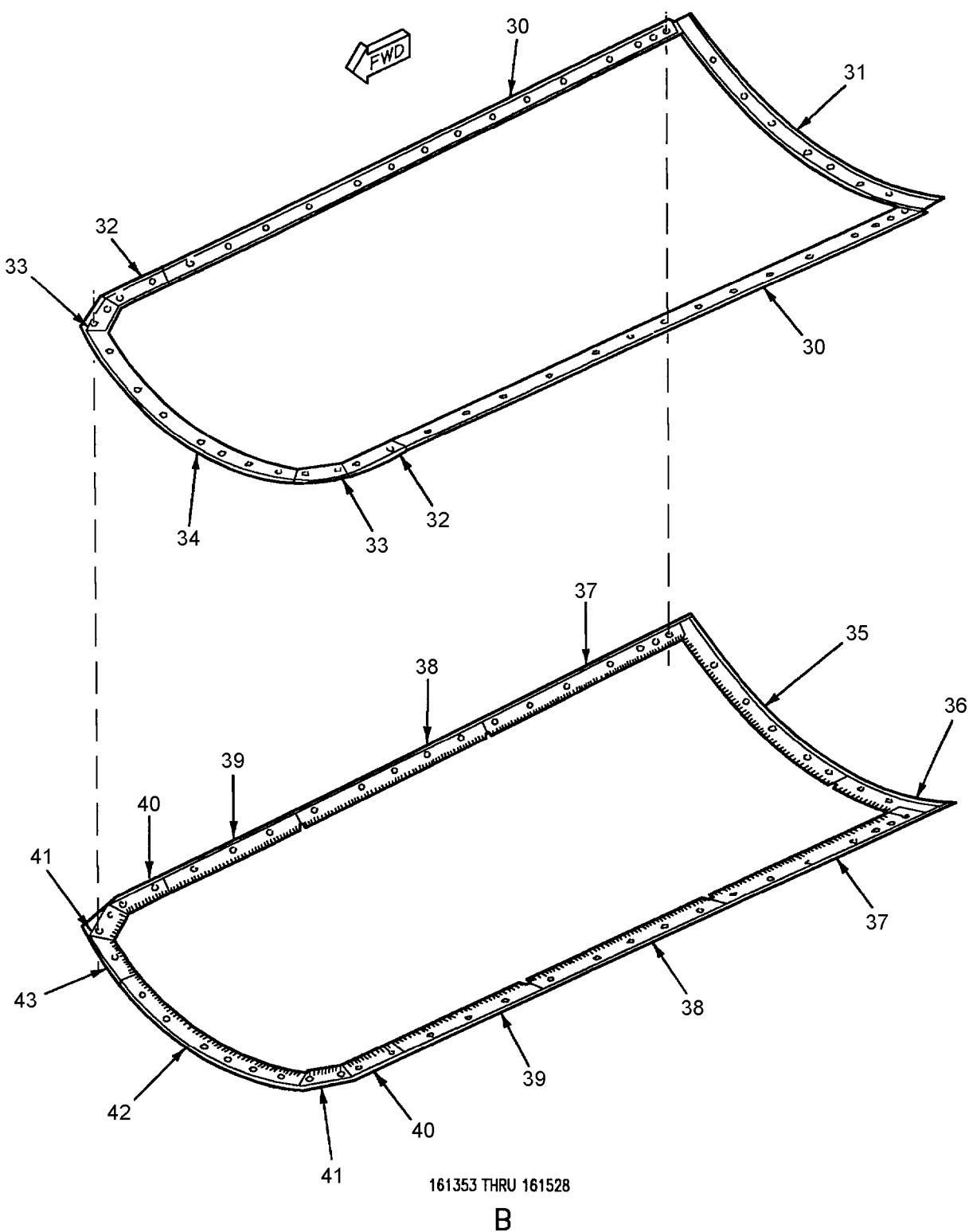


Figure 1. Material Index (Sheet 2)

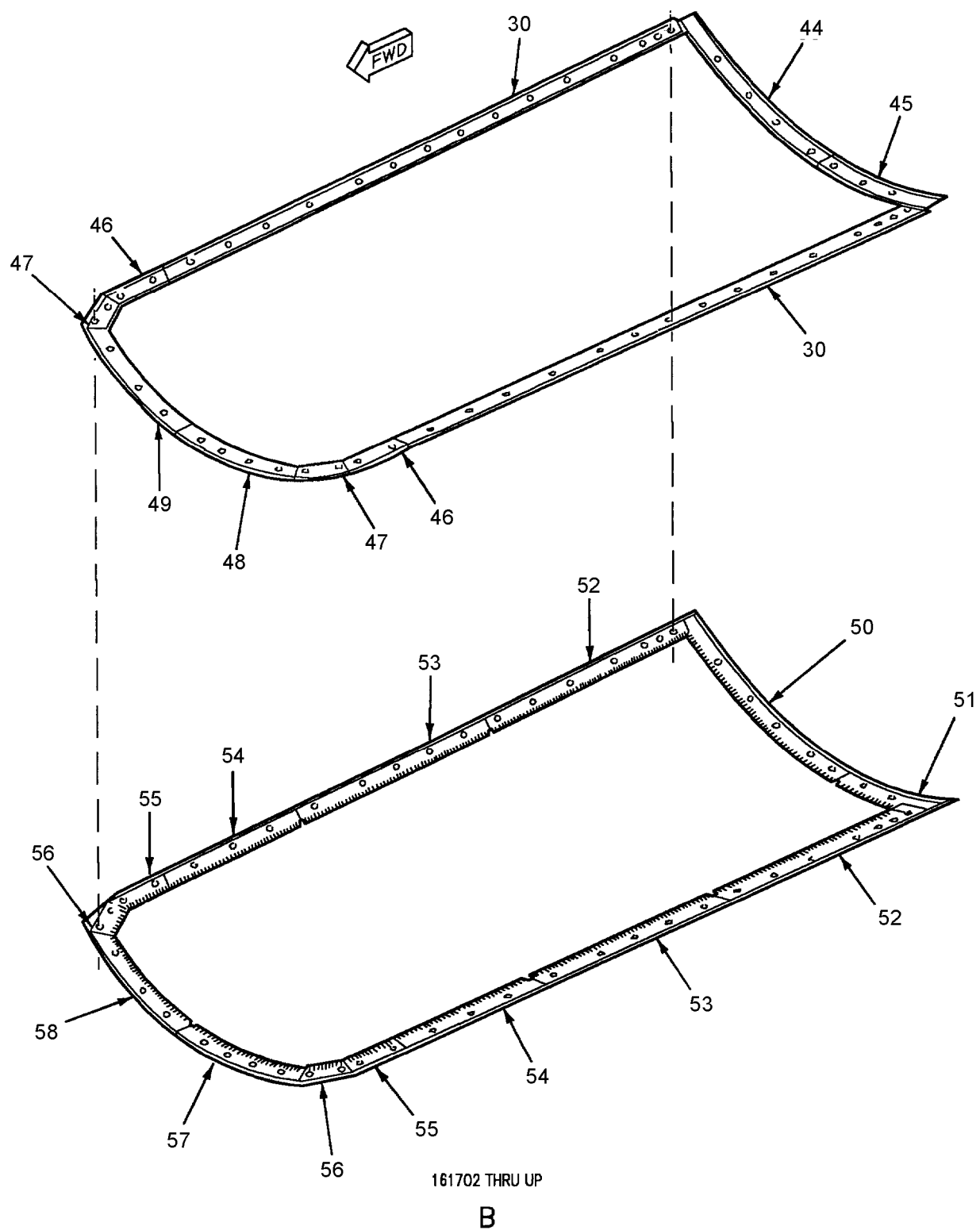


Figure 1. Material Index (Sheet 3)

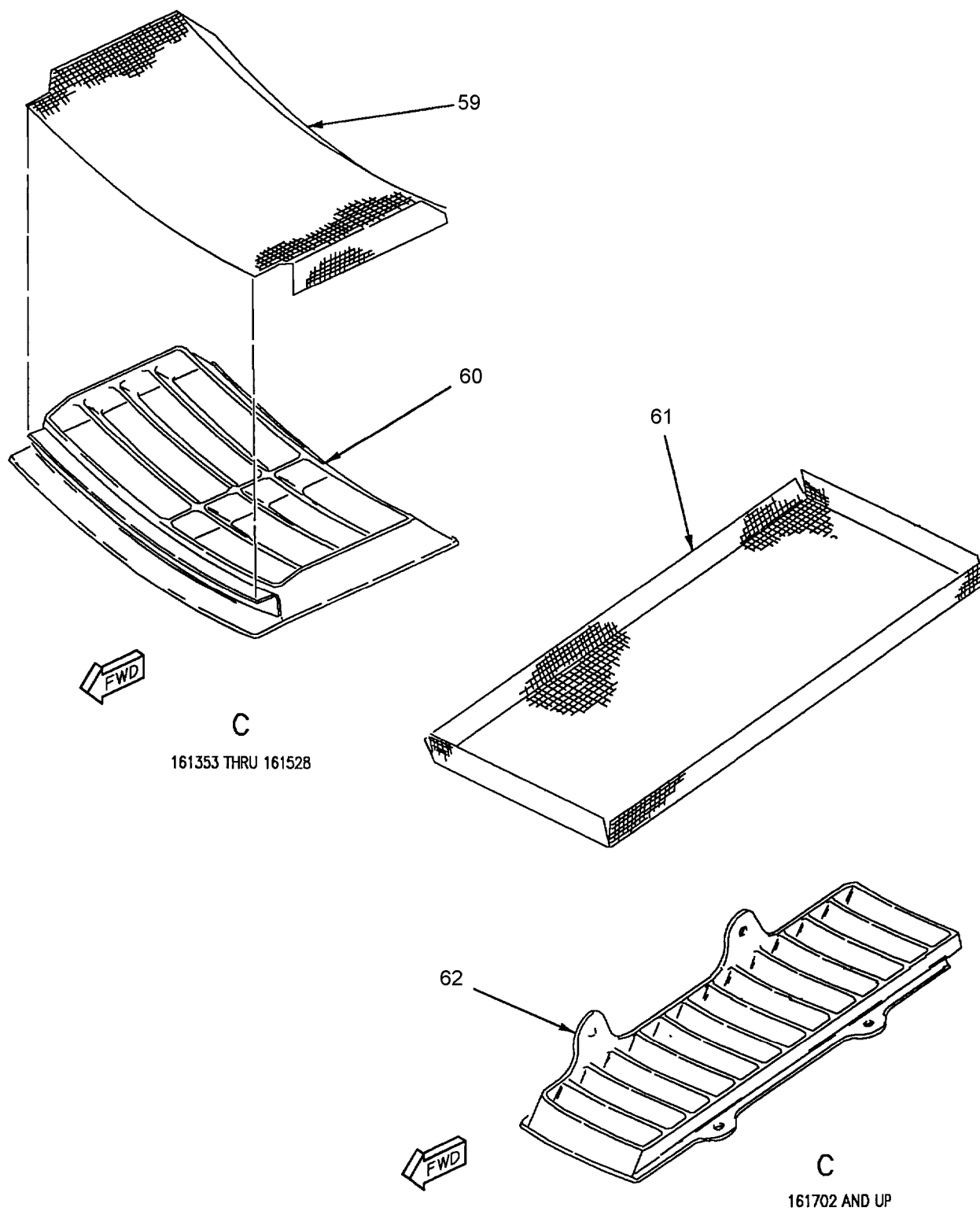
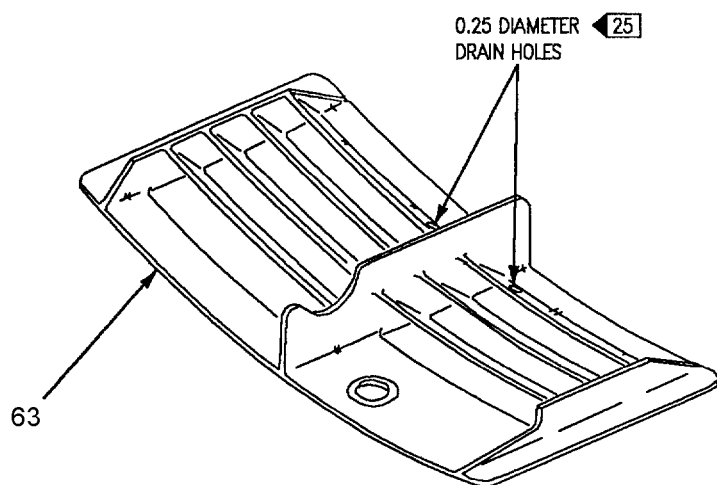
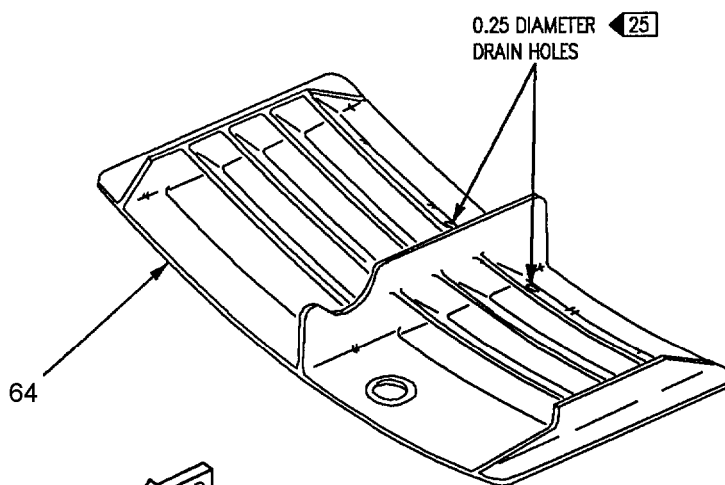


Figure 1. Material Index (Sheet 4)



D

161353 THRU 161528



D

161702 AND UP

Figure 1. Material Index (Sheet 5)

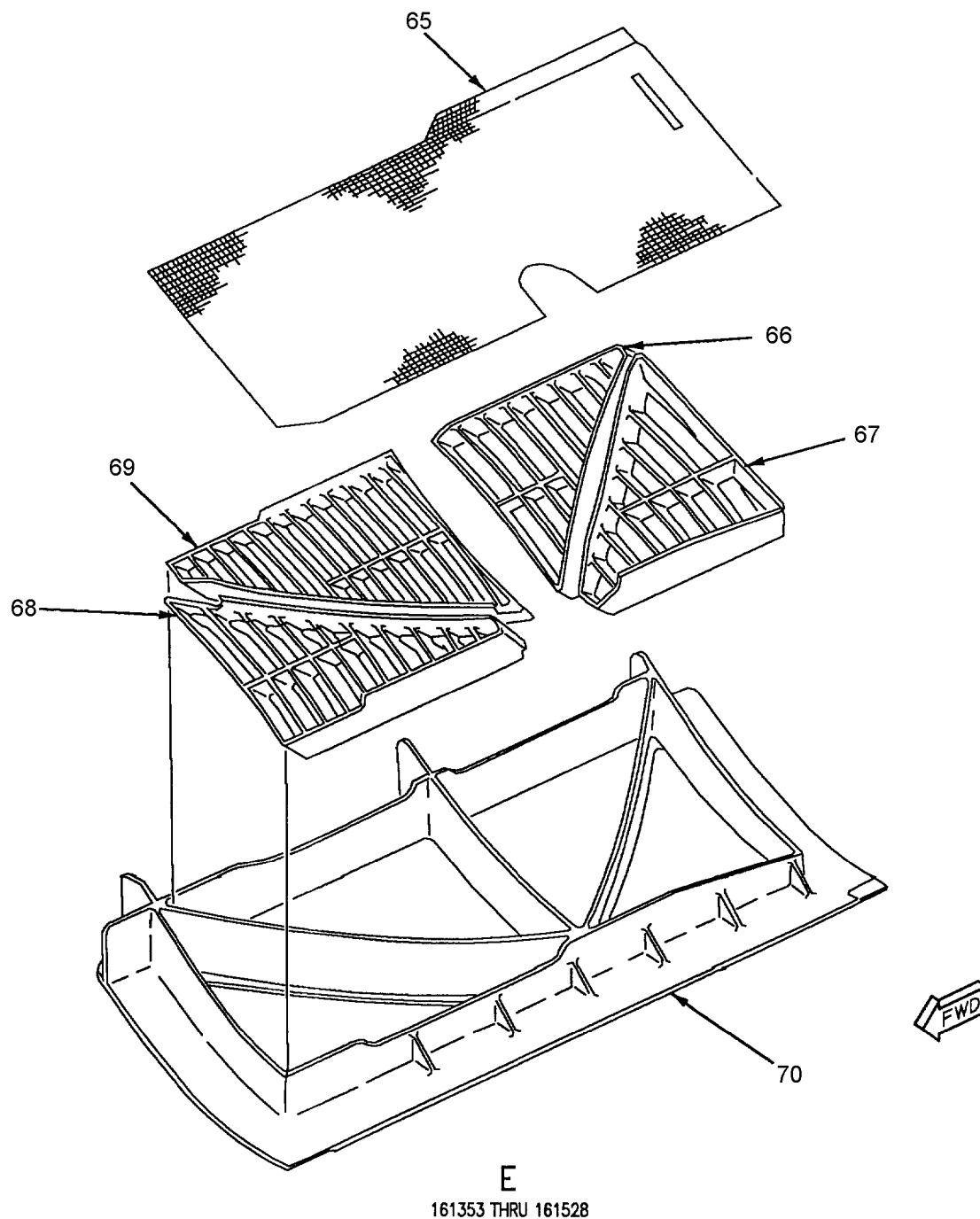


Figure 1. Material Index (Sheet 6)

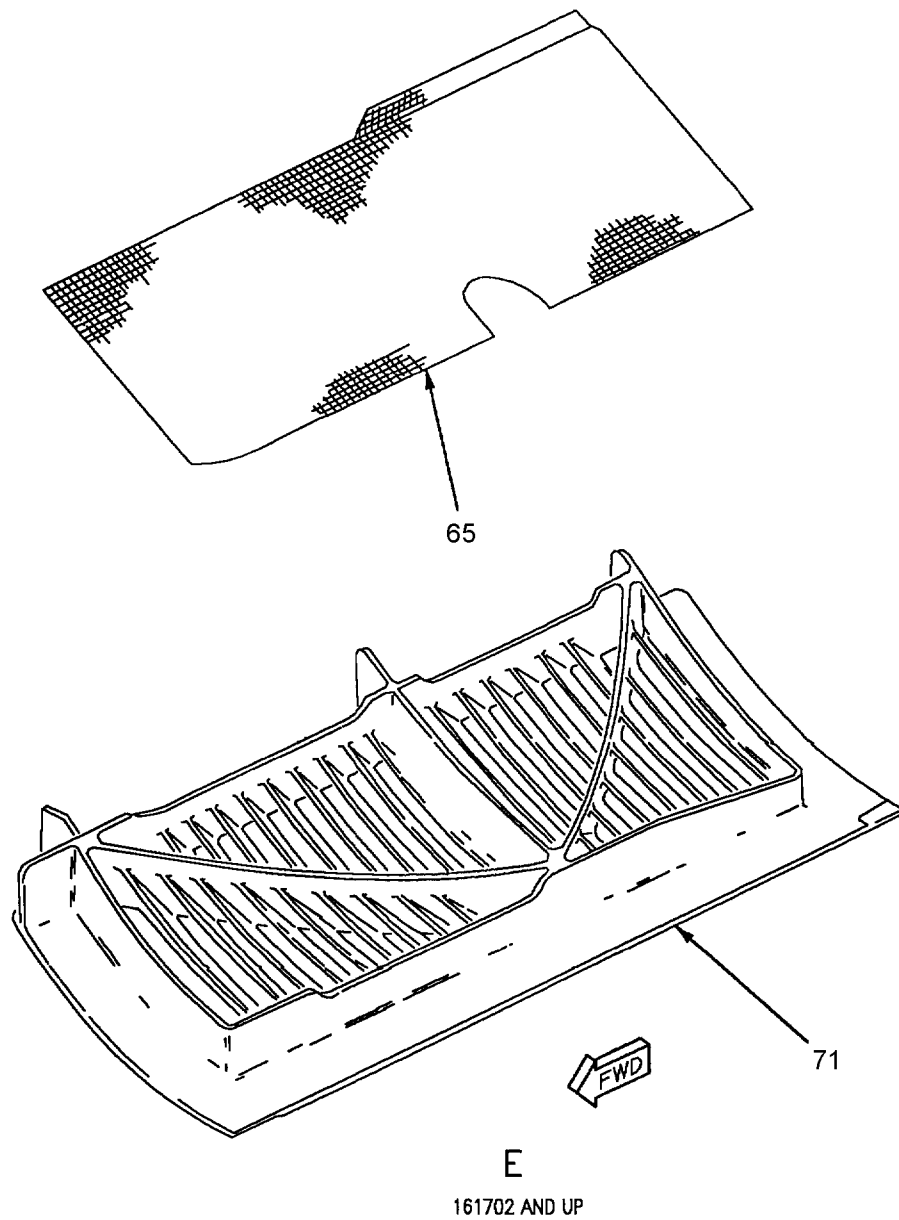


Figure 1. Material Index (Sheet 7)

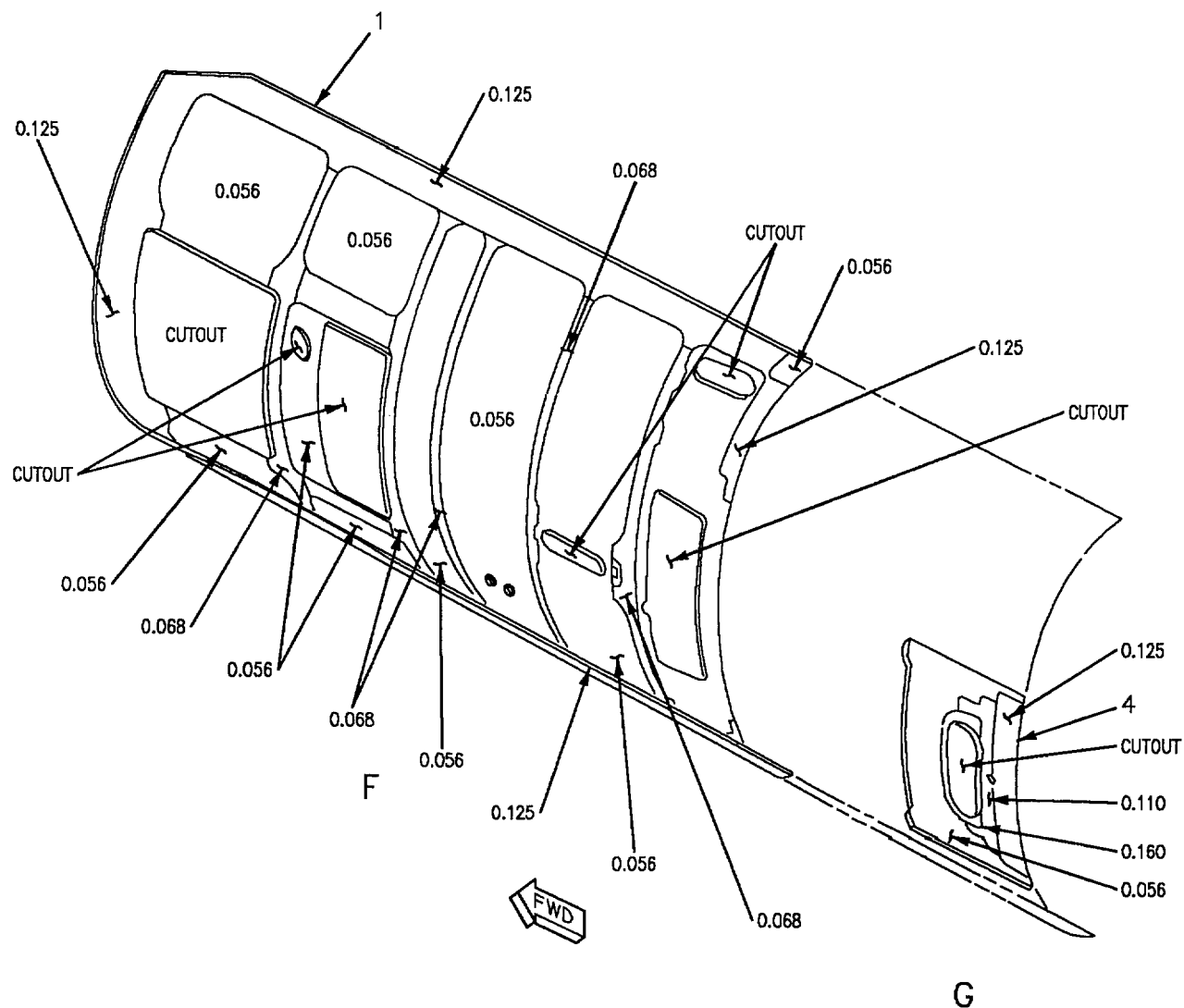


Figure 1. Material Index (Sheet 8)

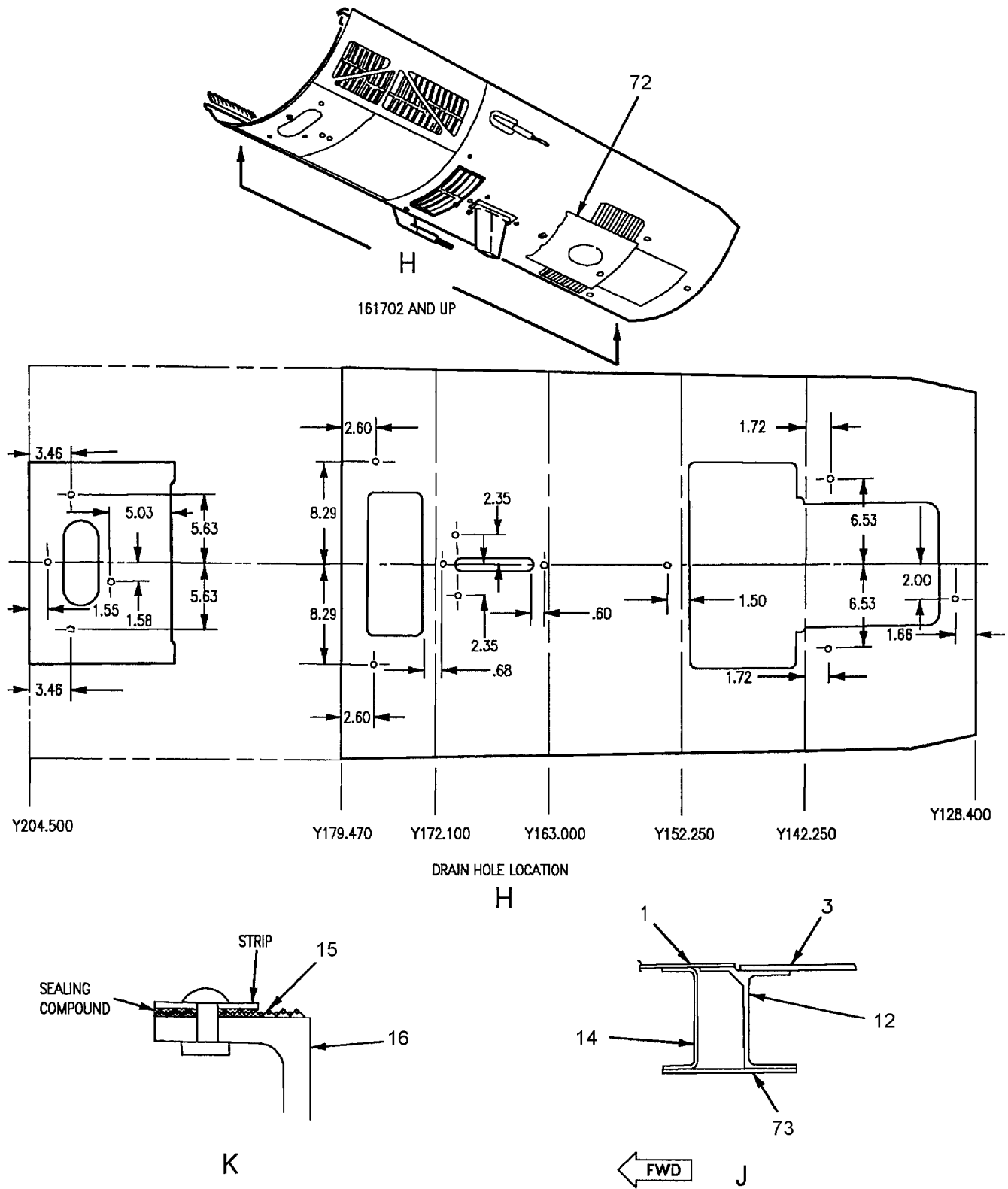


Figure 1. Material Index (Sheet 9)

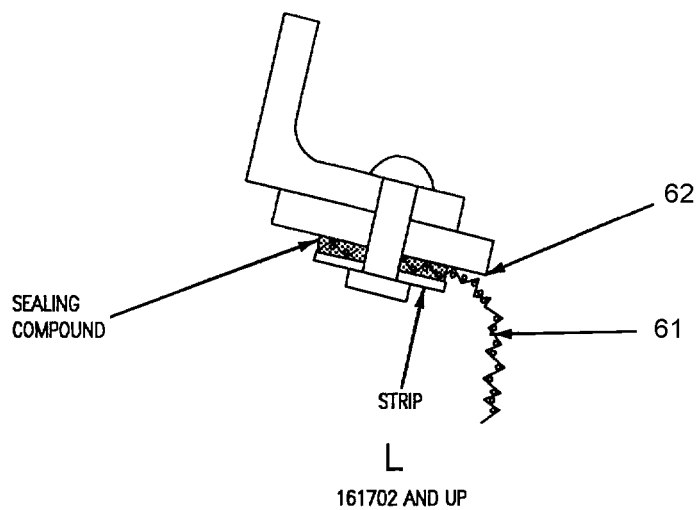
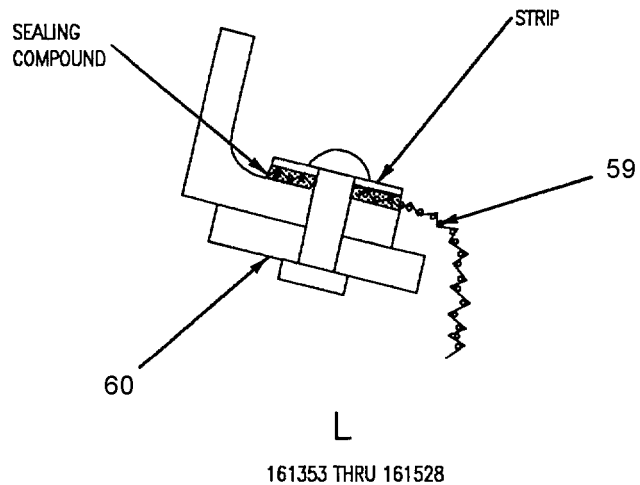


Figure 1. Material Index (Sheet 10)

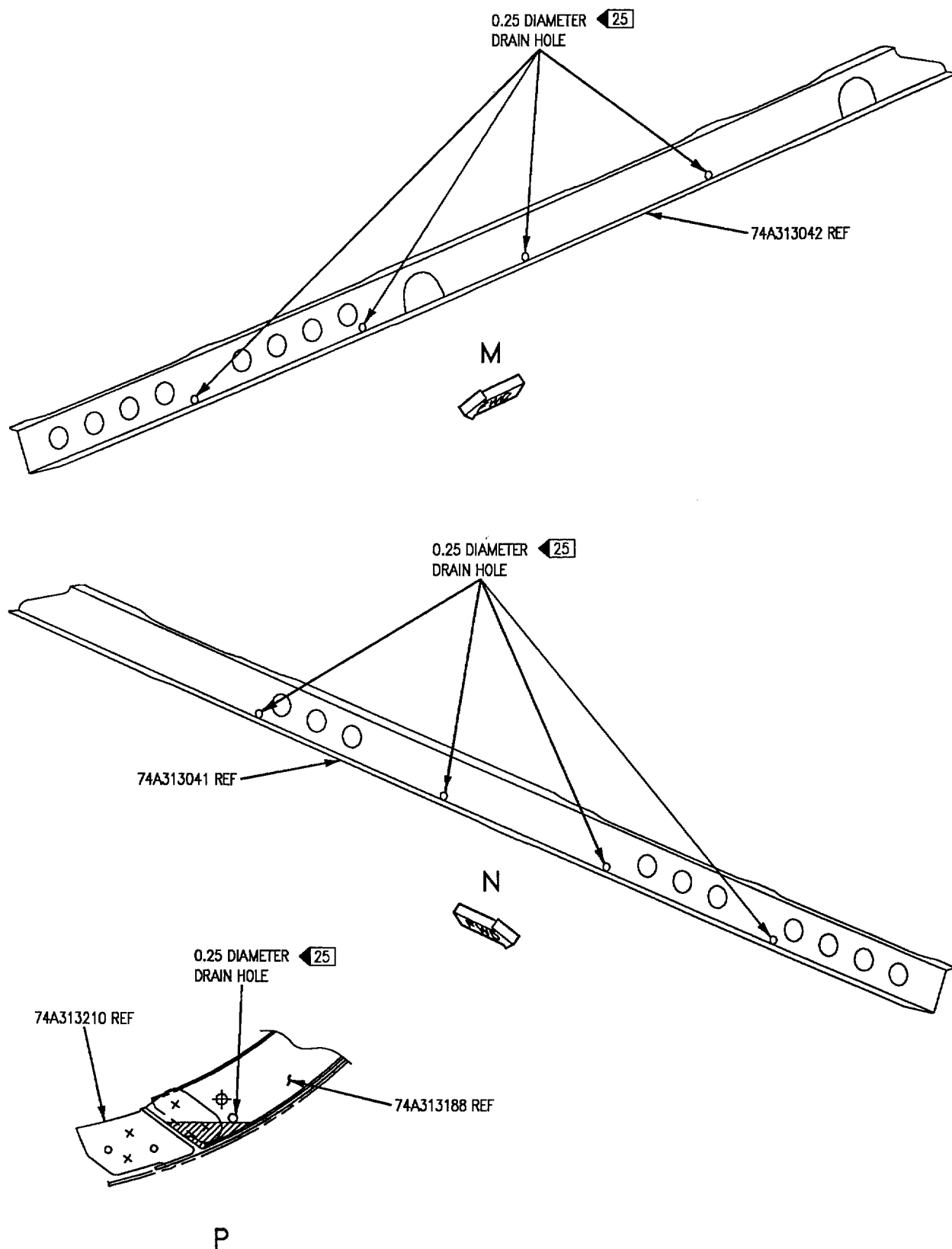


Figure 1. Material Index (Sheet 11)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
1	<div>3</div> <div>5</div> <div>6</div>	Forward Skin 74A313055-2029 74A313055-2031 74A313055-2035	0.125 Sheet	7075-T76 Alclad
2		Base, Antenna 74A880646-2001	1.00 Sheet	7075-T7351 Al Aly
3	<div>4</div>	Cover 74A315136-2001 <div>15</div>	0.375 Plate	7075-T7351 Al Aly
4		Aft Skin 74A313055-2025	0.160 Sheet	7075-T76 Alclad
5	<div>22</div> <div>21</div>	Hinge 74A313200-1001 74A313200-1003	Pressing	7075-T73 Al Aly
6	<div>22</div> <div>21</div>	Hinge 74A313201-2003 74A313201-2005	1.00 Sheet	7075-T7351 Al Aly
7		Hinge 74A313202-1001	Pressing	7075-T73 Al Aly
8		Hinge 74A313203-2005	Pressing	7075-T73 Al Aly
9		Former 74A313190-2007	0.063 Sheet	7075-T6 Alclad
10		Former 74A313189-2007	1MA162D01-10040 Extr	7075-T73 Al Aly
11		Angle 74A315108-2025	0.032 Sheet	7075-T6 Alclad
12		Former 74A313188-2009	1MA10427D01 Extr	7075-T73 Al Aly
13		Channel 74A313188-2019	0.063 Sheet	7075-T6 Alclad
14		Channel 74A313188-2015	0.063 Sheet	7075-T6 Alclad
15		Screen 74A313174-2087	0.020 Wire, 0.125 Grid 7.35 X 11.60	304 Cres
16	<div>7</div> <div>11</div>	Former 74A313187-2005 74A313187-1001	1MA163D01-10033 Extr	7075-T76 Al Aly

Figure 1. Material Index (Sheet 12)

























Idx No.	Eft	Nomenclature and Part No.	Description	Material
17		Bracket 74A313059-2005, -2007	0.080 Sheet	7075-T6 Alclad
18		Angle 74A313040-2165, -2166	0.040 Sheet	7075-T6 Alclad
19	   	Former 74A313186-2005 74A313186-2009 74A313186-2013 74A313186-2015	1MA163D01-10033 Extr	7075-T76 Al Aly
20		Support 74A313191-2070	0.032 Sheet	7075-T6 Alclad
21	   	Plate 74A313185-2015 74A313185-2023 74A313185-2041 74A313185-2045	0.050 Sheet	7075-T6 Alclad
22		Sill 74A313049-2001, -2002	1MA10396D06 Extr	7075-T76511 Al Aly
23	    	Former 74A313048-2005 74A313048-9011 74A313048-9013 74A313048-2011 74A313048-2015	1MA163D01-10033 Extr	7075-T76 Al Aly
24	 	Tee 74A315059-2001, -2002 74A315059-2005, -2002	1MA10426D05 Extr	7076-T73511 Al Aly
25	 	Sill 74A313042-2009 74A313042-2011	1MA180D01-10245 Extr	7075-T76 Al Aly
26	 	Former 74A313043-2005 74A313043-2007	1MA163D01-10042 Extr	7075-T73 Al Aly
27	 	Sill 74A313041-2007 74A313041-2009	1MA180D01-10245 Extr	7075-T73 Al Aly
28		Support 74A313218-2003, -2004	0.063 Sheet	7075-T6 Al Aly
29		Support 74A313218-2001, -2002	0.063 Sheet	7075-T6 Al Aly

Figure 1. Material Index (Sheet 13)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
30		Retainer 74A313040-2125, -2126	1MA10503C03 Extr	6061-T6511 Al Aly
31		Retainer 74A313040-2131	1MA10503C03 Extr	6061-T6511 Al Aly
32		Retainer 74A313040-2127, -2128	1MA10503C03 Extr	6061-T6511 Al Aly
33		Retainer 74A313040-2129, -2130	1MA10503C03 Extr	6061-T6511 Al Aly
34		Retainer 74A313040-2133	1MA10503C03 Extr	6061-T6511 Al Aly
35		Leaf 74A313040-2145	ST9M622-4-2400	Beryllium Copper
36		Leaf 74A313040-2143	ST9M622-4-1266	Beryllium Copper
37		Leaf 74A313040-2149, -2150	ST9M622-4-2400	Beryllium Copper
38		Leaf 74A313040-2147, -2148	ST9M622-4-2400	Beryllium Copper
39		Leaf 74A313040-2141, -2142	ST9M622-4-1522	Beryllium Copper
40		Leaf 74A313040-2139, -2140	ST9M622-4-829	Beryllium Copper
41		Leaf 74A313040-2137, -2138	ST9M622-4-368	Beryllium Copper
42		Leaf 74A313040-2135	ST9M622-4-2400	Beryllium Copper
43		Leaf 74A313040-2159	ST9M622-4-521	Beryllium Copper
44		Retainer 74A313211-2033	1MA10503C03 Extr	6061-T6511 Al Aly
45		Retainer 74A313211-2031	1MA10503C03 Extr	6061-T6511 Al Aly
46		Retainer 74A313211-2039, -2040	1MA10503C03 Extr	6061-T6511 Al Aly
47		Retainer 74A313211-2041, -2042	1MA10503C03 Extr	6061-T6511 Al Aly

Figure 1. Material Index (Sheet 14)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
48		Retainer 74A313211-2051	1MA10503C03 Extr	6061-T6511 Al Aly
49		Retainer 74A313211-2049	1MA10503C03 Extr	6061-T6511 Al Aly
50		Leaf 74A313211-2043	ST9M622-4-2080	Beryllium Copper
51		Leaf 74A313211-2029	ST9M622-4-1586	Beryllium Copper
52		Leaf 74A313211-2025, -2026	ST9M622-4-2400	Beryllium Copper
53		Leaf 74A313211-2027, -2028	ST9M622-4-2400	Beryllium Copper
54		Leaf 74A313211-2045, -2046	ST9M622-4-1522	Beryllium Copper
55		Leaf 74A313211-2035, -2036	ST9M622-4-725	Beryllium Copper
56		Leaf 74A313211-2037, -2038	ST9M622-4-434	Beryllium Copper
57		Leaf 74A313211-2053	ST9M622-4-1645	Beryllium Copper
58		Leaf 74A313211-2047	ST9M622-4-1281	Beryllium Copper
59		Screen 74A313028-2007	0.020 Wire, 0.125 Grid 5.80 x 11.40	304 Cres
60		Louver 74A313028-2017	Casting	A356-T61 Al Aly
61		Screen 74A313211-2003	0.020 Wire, 0.125 Grid 5.18 x 11.40	304 Cres
62		Louver 74A313217-2003, -2004	Casting	A356-T61 Al Aly
63		Louver 74A315125-2001	2.00 Plate	7075-T7351 Al Aly
64		Louver 74A315124-2003	Casting	A356-T61 Al Aly

Figure 1. Material Index (Sheet 15)


































Idx No.	Eft	Nomenclature and Part No.	Description	Material
65		Screen 74A313040-2083, -2084	0.020 Wire, 0.125 Grid 9.50 x 22.20	304 Cres
66		Louver 74A315116-2003, -2004		Thermoplastic
67		Louver 74A315106-2003, -2004		Thermoplastic
68		Louver 74A315115-2003, -2004		Thermoplastic
69		Louver 74A315117-2003, -2004		Thermoplastic
70		Frame 74A313204-2025, -2024	4.00 Plate	7075-T7351 Al Aly
71		Louver 74A313210-2003, -2004	Casting	A356-T61 Al Aly
72		Support 74A313219-2003	Pressing	7075-T73 Al Aly
73	  	Skin 74A313188-2023 74A313188-2029 74A313188-2035	0.063 Sheet	7075-T6 Alclad
<p style="text-align: center;">LEGEND</p> <p> Last dash number indicates length in hundredths of an inch. For example, -1266 is 12.66 inches long, -829 is 8.29 inches long.</p> <p> Polyester Type GPT30.</p> <p> 161353 THRU 161528.</p> <p> 161702 AND UP.</p> <p> 161702 THRU 161734.</p> <p> 161735 AND UP.</p> <p> 161702 THRU 161736.</p> <p> 161737 THRU 161761.</p> <p> 161924 THRU 162892.</p> <p> 161353 THRU 161736.</p> <p> 161737 AND UP.</p> <p> 161702 THRU 161924.</p> <p> 161925 THRU 161965.</p> <p> 161966 AND UP.</p> <p> Cover will be removed when AS-3190/ALR-67 antenna is installed.</p> <p> 161737 THRU 162434.</p> <p> 162435 AND UP.</p> <p> 161702 THRU 162414.</p> <p> 162415 THRU 162839.</p>				

Figure 1. Material Index (Sheet 16)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
20			EMI Electrical bonding strip.	
21			162882 AND UP.	
22			161353 THRU 162881.	
23			162840 AND UP.	
24			162893 AND UP.	
25			AFTER F/A-18 AFC 161.	

Figure 1. Material Index (Sheet 17)

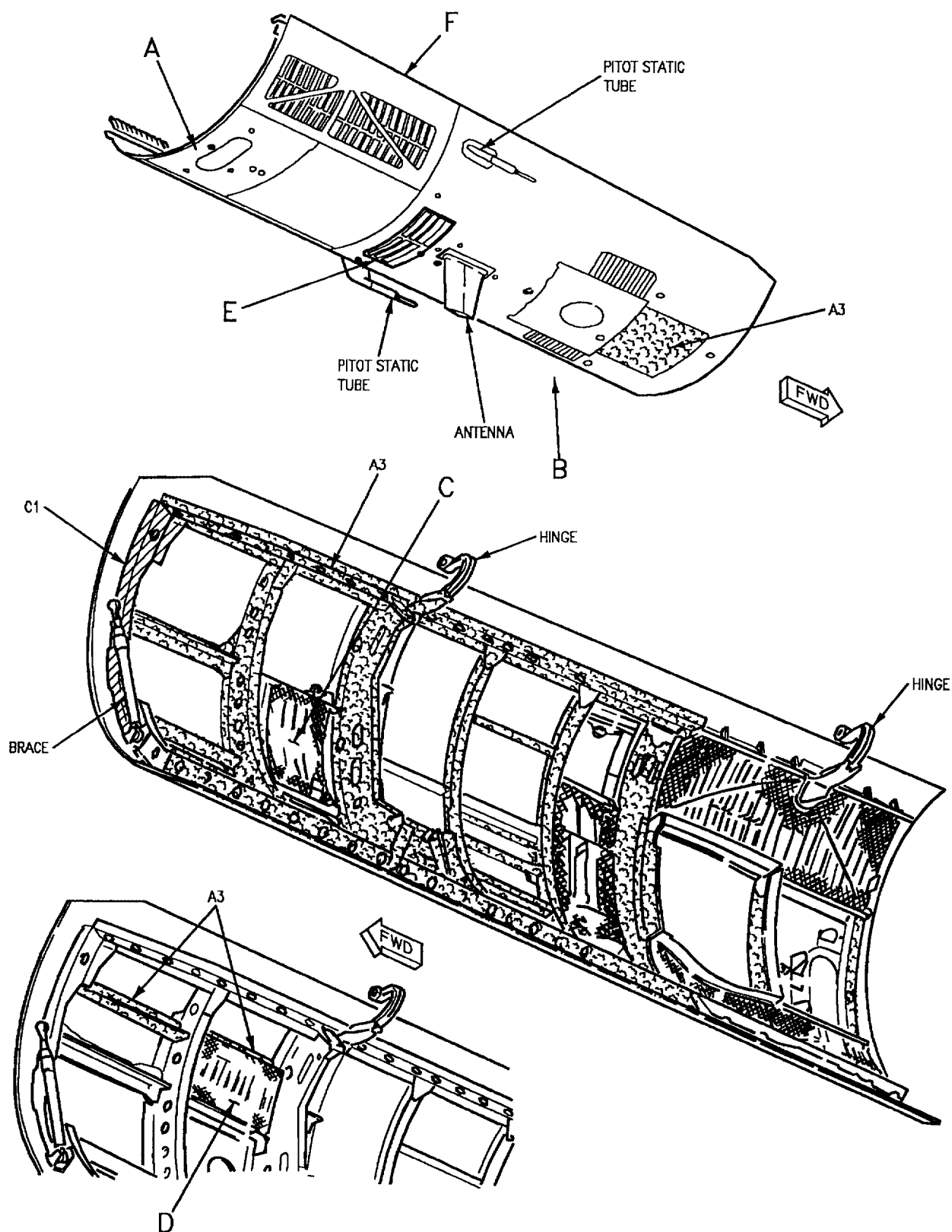


Figure 2. Repair Zones (Sheet 1)

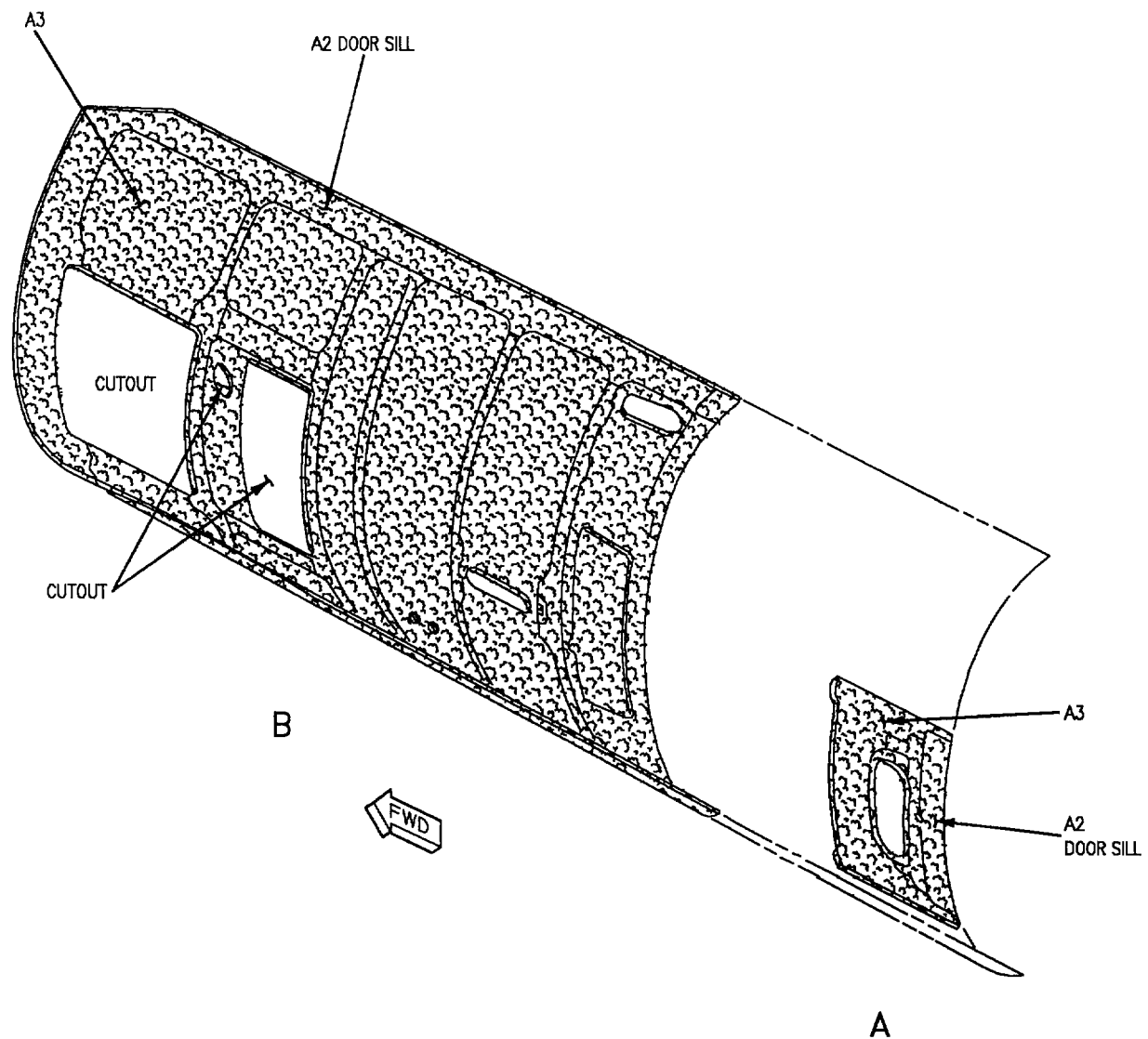
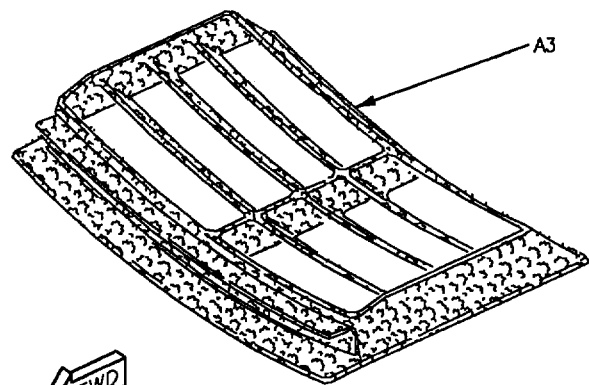
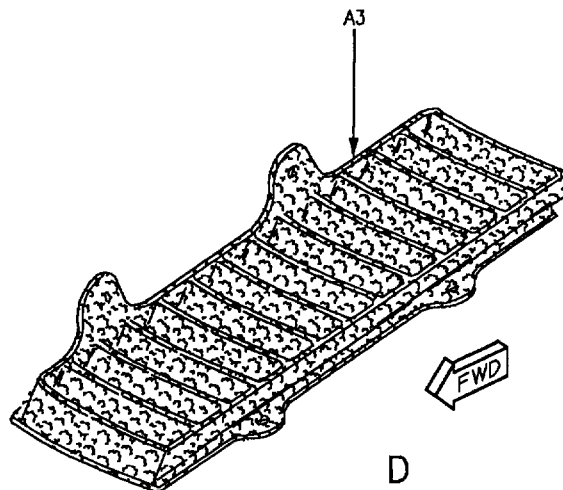


Figure 2. Repair Zones (Sheet 2)



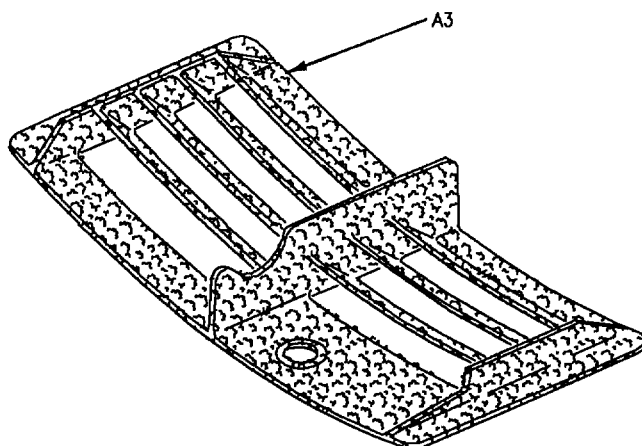
C

161353 THRU 161528

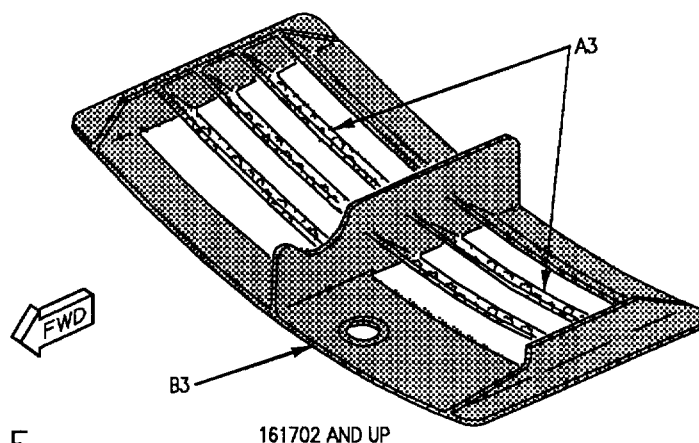


D

161702 AND UP



161353 THRU 161528



E

161702 AND UP

Figure 2. Repair Zones (Sheet 3)

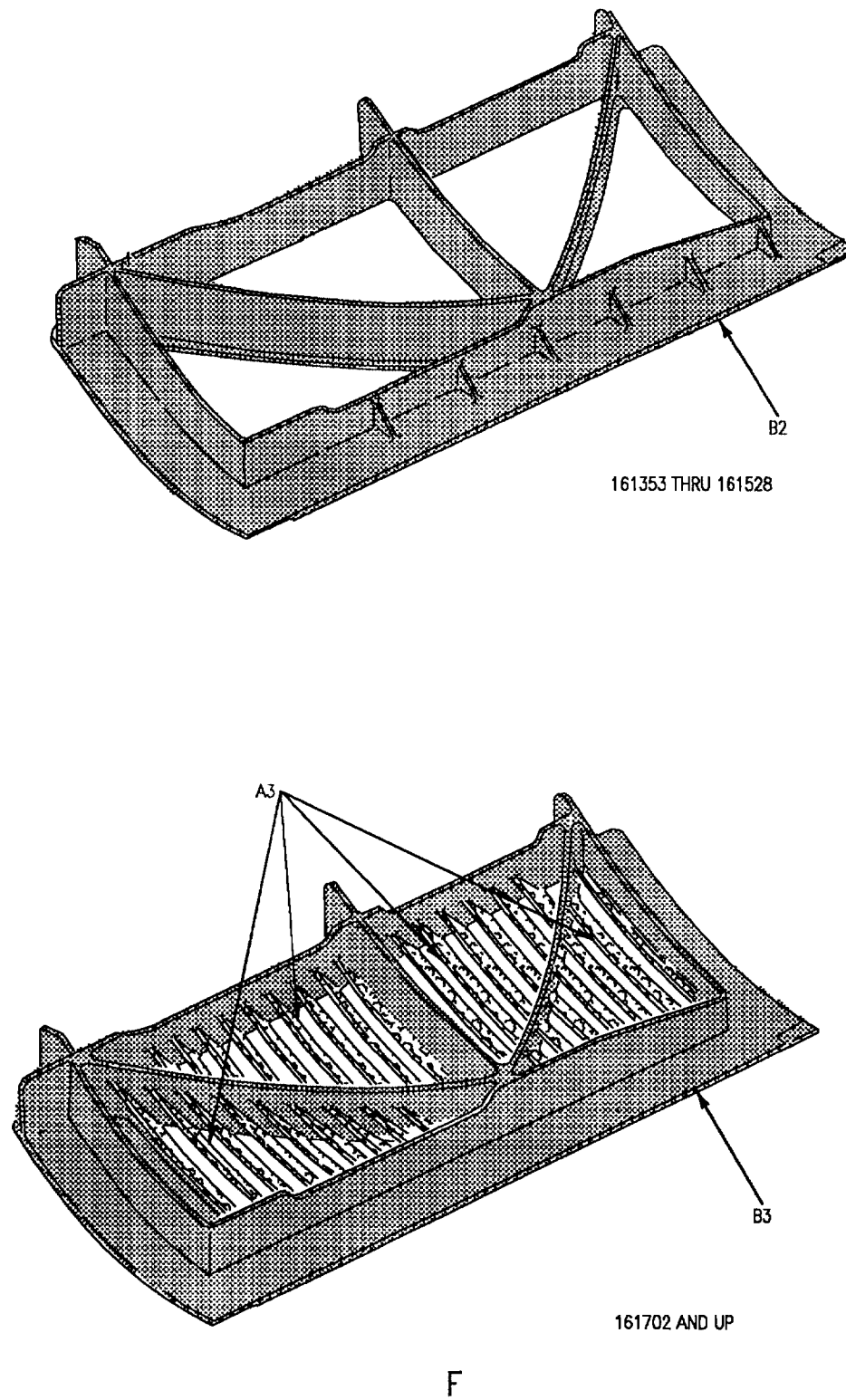


Figure 2. Repair Zones (Sheet 4)

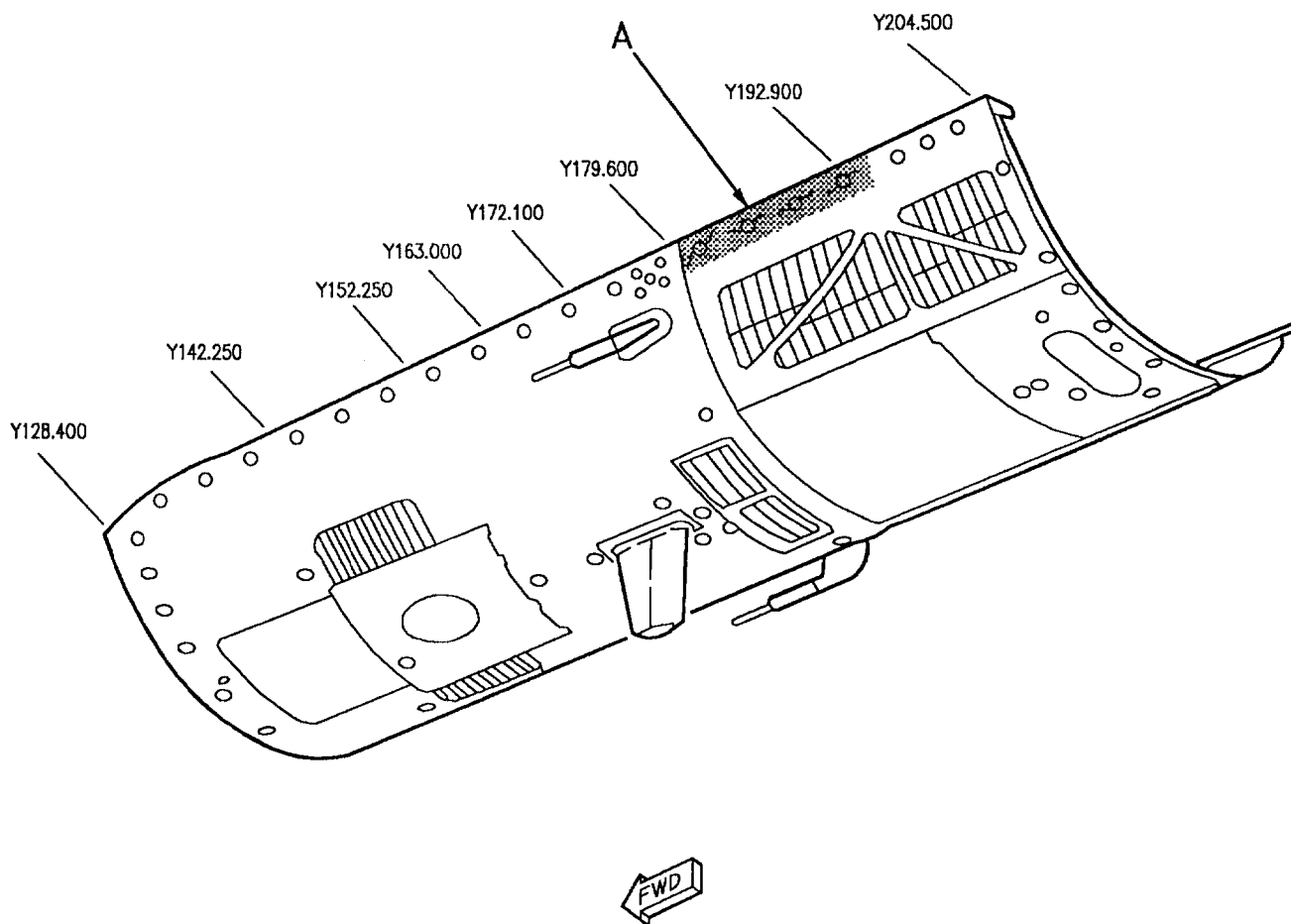


Figure 3. Door 3 Fastener Hole Repair (Sheet 1)

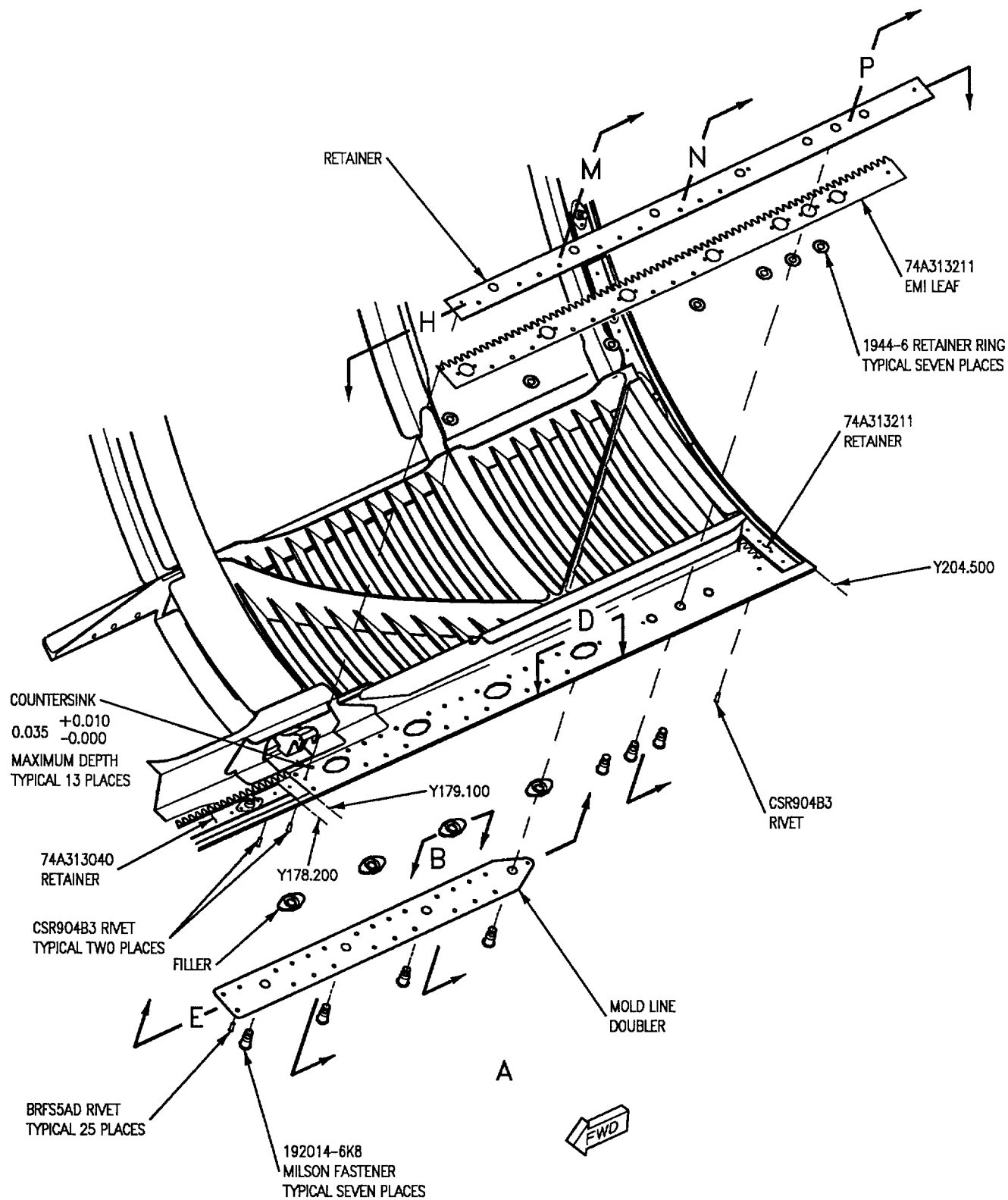
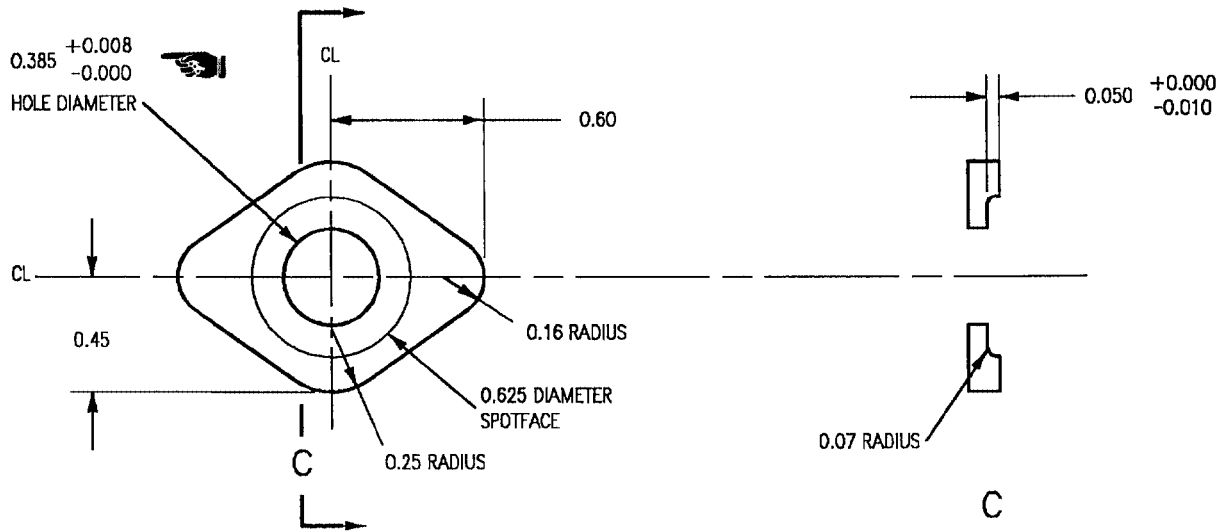
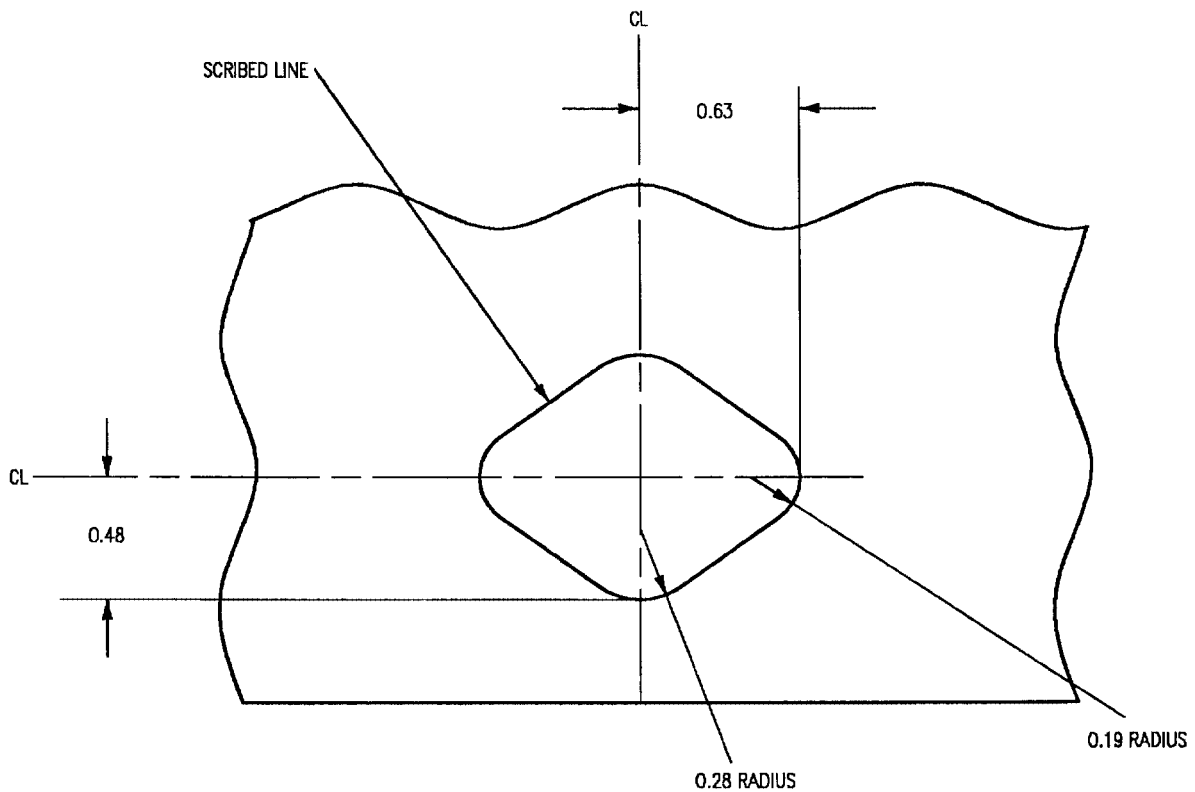


Figure 3. Door 3 Fastener Hole Repair (Sheet 2)



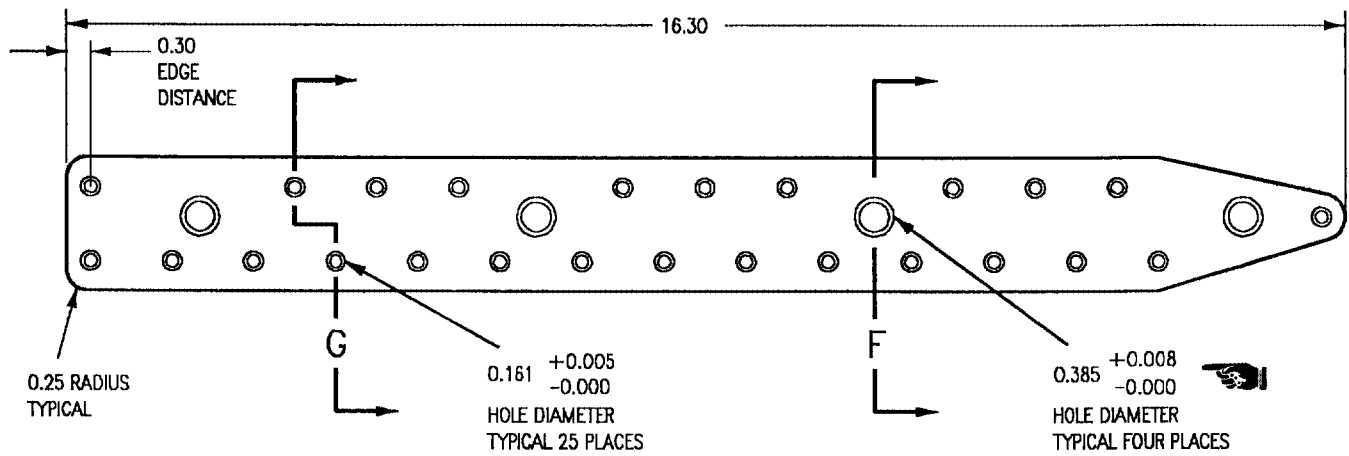
MATERIAL: 7075-T6 ALCLAD, 0.125 INCH SHEET

B
TYPICAL FOUR PLACES



D
TYPICAL FOUR PLACES

Figure 3. Door 3 Fastener Hole Repair (Sheet 3)



MATERIAL: 7075-T6 ALCLAD, 0.080 SHEET

E

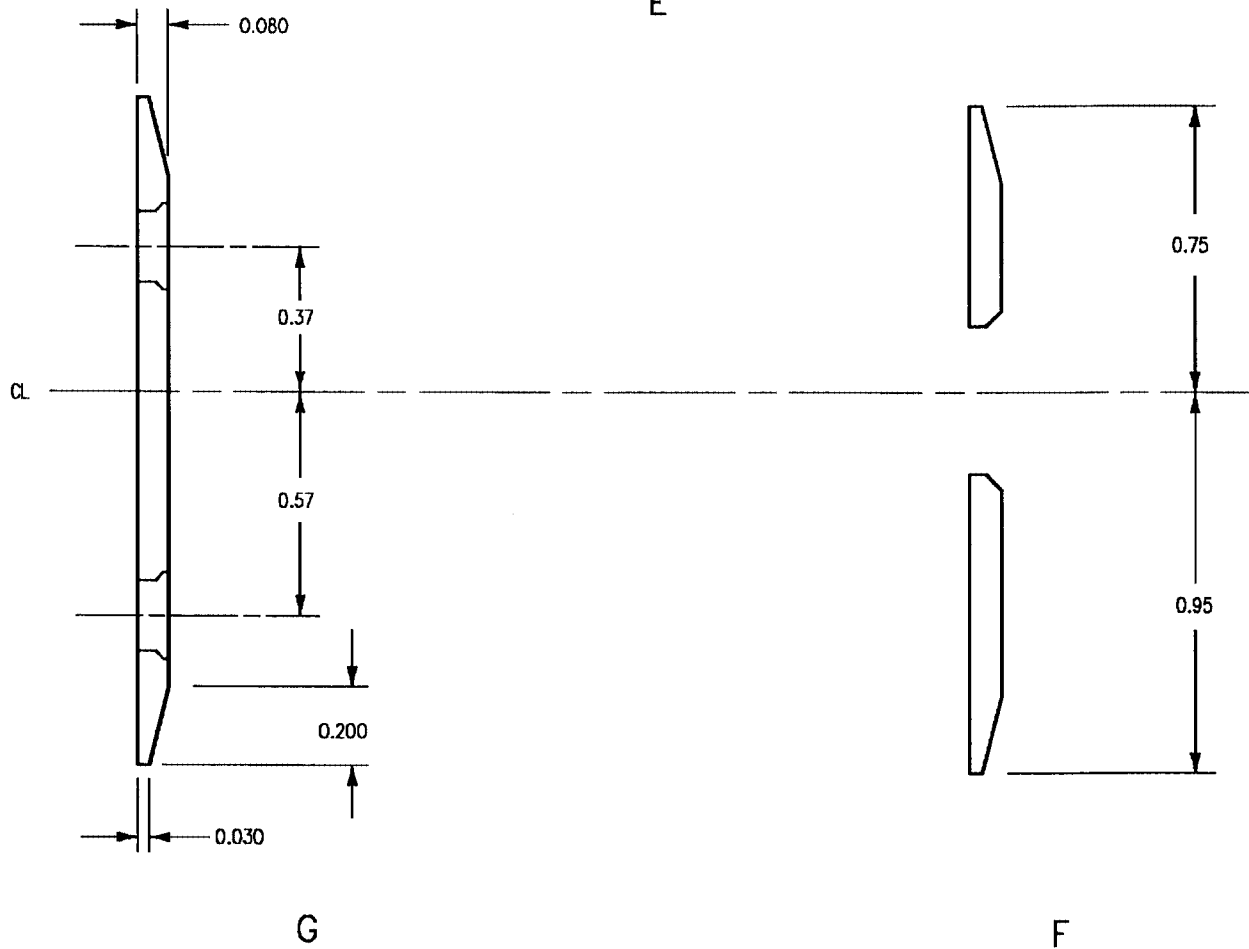
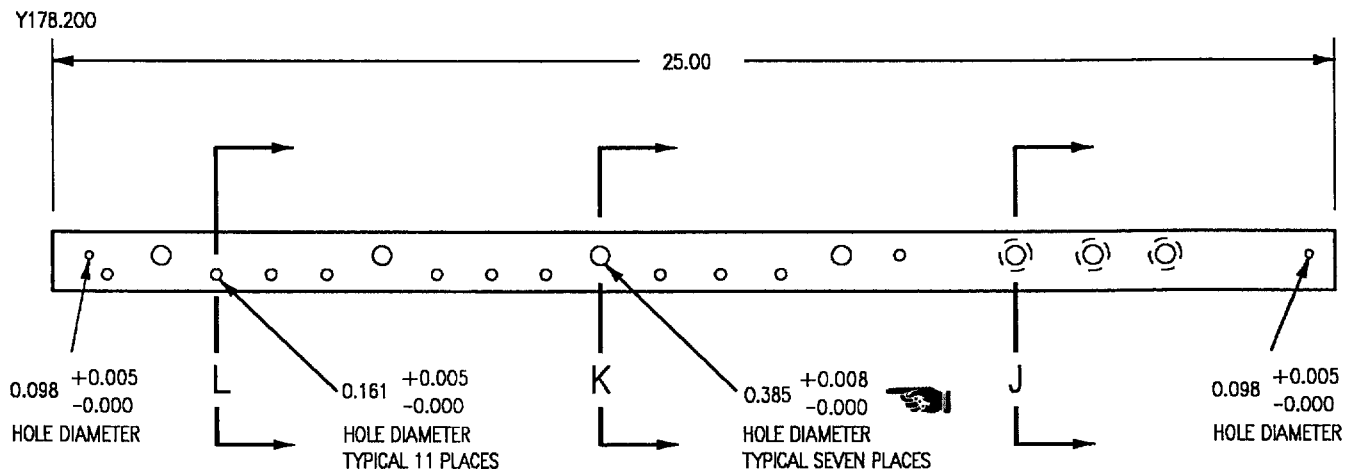


Figure 3. Door 3 Fastener Hole Repair (Sheet 4)



MATERIAL: 7075-T6 ALCLAD, 0.090 SHEET

H

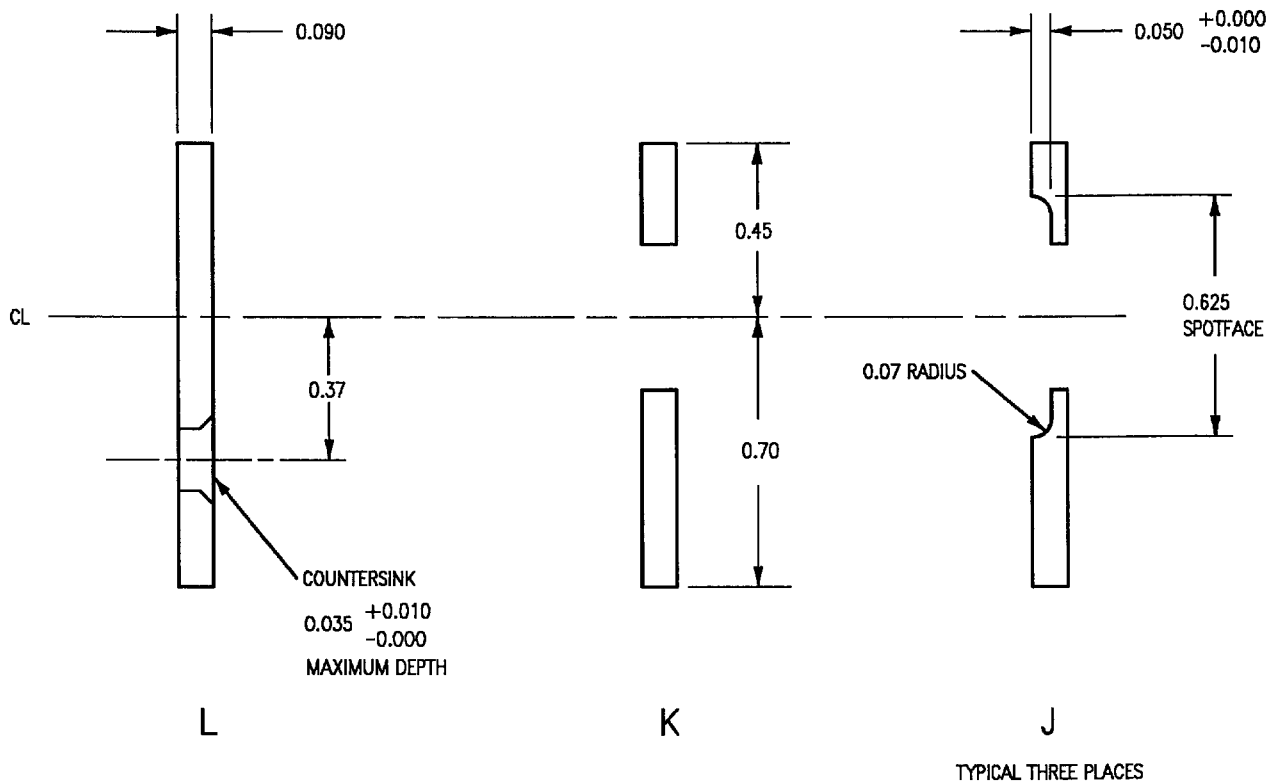


Figure 3. Door 3 Fastener Hole Repair (Sheet 5)

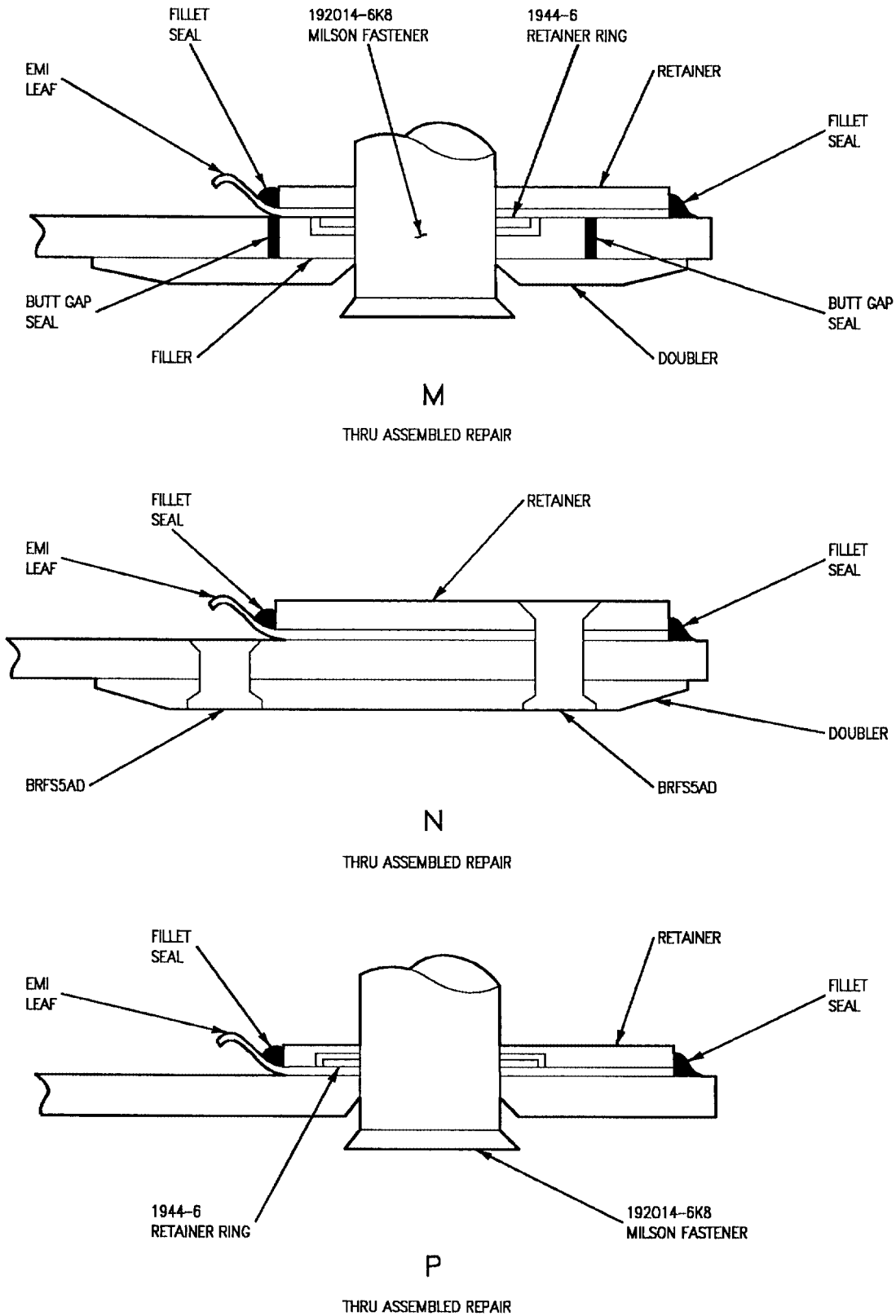


Figure 3. Door 3 Fastener Hole Repair (Sheet 6)

14. REPLACEMENT.

15. **DOOR 3.** See figure 4. Door 3 is interchangeable. Fastener attaching hardware is shown on figure. For Milson fasteners (A1-F18AC-SRM-420, FIG 026 00). Replace receptacles and Milson fasteners (NAVAIR 01-1A-8). Remove and replace door 3 as below.

16. Removal.



Do not use pitot static probe on door 3 as handhold. Mishandling could damage probe.

Door 3 may be difficult to control in high winds. Make sure door is supported while removing.

- a. Open door 3 (A1-F18AC-LMM-010).
- b. Disconnect 74A600101-5011, -5013, -5015, -5017 and -5019 pitot static tube lines. For static tube line removal (A1-F18AC-PIM-000, WP005 01).
- c. Disconnect cable connector from waveguide and remove fasteners securing clamps to door structure (A1-F18AC-WDM-000, L008 00).
- d. Disconnect 62P8014B and 62P8014C plugs and remove fastener holding clamp to door structure (A1-F18AC-WDM-000, L008 00).
- e. Disconnect 72J-B009, 74J-B008, 74J-B007 and 71J-B004 cannon plugs (A1-F18AC-WDM-000, L004 00).
- f. Disconnect 78P-B007, 76P-B018 and 52P-B023 connectors and remove fastener securing clamp to door structure (A1-F18AC-WDM-000, L004 00).
- g. Remove fastener attaching brace to fuselage structure, figure 4, detail c.
- h. Support door and remove forward and aft hinge attaching fasteners, detail B.

17. Installation.

- a. Support door and install forward and aft hinge attaching fasteners, figure 4, detail B.
- b. Install fastener attaching brace to fuselage structure, detail c.
- c. Connect 78P-B007, 76P-B018 and 52P-B023 connectors and attach clamp to door structure (A1-F18AC-WDM-000, L004 00).
- d. Connect 72J-B009, 74J-B008, 74J-B007 and 71J-B004 cannon plugs (A1-F18AC-WDM-000, L004 00).
- e. Connect 62P-8014B and 62P-8014C plugs and attach clamp to door structure (A1-F18AC-WDM-000, L008 00).
- f. Connect cable connector to waveguide and attach clamp to door structure (A1-F18AC-WDM-000, L008 00).
- g. Connect 74A600101-5011, -5013, -5015, -5017 and -5019 pitot static tube lines. For static tube line installation (A1-F18AC-PIM-000, WP005 01).
- h. Close door 3 (A1-F18AC-LMM-010).

18. **COVERS, 74A313012 AND 74A315136.** See figure 5. Covers are interchangeable. Fastener attaching hardware is shown on figure. For fastener (A1-F18AC-SRM-420, FIG 026 00).

19. **BASE, 74A880646.** See figure 6. Base is interchangeable. Fastener attaching hardware is shown on figure. For fasteners (A1-F18AC-SRM-420, FIG 026 00).

20. **PITOT STATIC PROBE COVER RECEPTACLES.** See figure 7.

21. **EMI ELECTRICAL BONDING STRIPS.** See figure 1. EMI electrical bonding strips, (EMI strips), damaged beyond acceptable limits shall be replaced. Undamaged EMI strips may be removed and reinstalled on aircraft displaying corrosion between door sill and EMI strips.

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
TTP1757, COMPL, COLOR Y	Primer, Coating
MIL-S-81733, TYPE 2-1/2	Sealing Compound
MIL-S-8802, TYPE 2, CLASS A-1/2	Sealing Compound
CSR904B3-()	Rivet (as required)
ST9M622-4-2400	Strip-Bonding Electrical



Be careful not to enlarge holes when drilling out rivets. Damage to door can occur.

- a. Remove rivets attaching milson panel fastener shims.
- b. Remove shims.
- c. Remove milson panel fasteners (NAVAIR 01-1A-8).
- d. Remove rivets attaching retainer and EMI strips to door.
- e. Remove retainer and EMI strip.
- f. If reinstalling existing EMI strip, clean EMI strip (NAVAIR-1-1A-509).
- g. Inspect door sill for corrosion.
- h. If corrosion is present, remove corrosion (A1-F18AC-SRM-500, WP005 00).
- i. Apply chemical conversion surface treatment (A1-F18AC-SRM-500, WP008 00).
- j. If reinstalling existing EMI strip proceed to o.

NOTE

Maintain 0.030 -0.080 inch gap between EMI strip sections.

k. Cut new EMI strip to size from ST9M622-4-24 stock.

l. Position new EMI strip and retainer, secure in place.

m. Punch holes in EMI strips for rivets and milson fasteners where required.

n. Remove EMI strip and retainer.



Zinc Chromate Primer Coating, Low Moisture Sensitivity, TT-P-1757, Type I

14

o. Apply TT-P-1757 primer to all faying surfaces.



Sealing Compound, MIL-S-81733, Type 2-1/2

16



Sealing Compound, MIL-S-8802, Type 2, Class A-1/2

12

NOTE

Keep EMI strip, spring fingers clean.

p. Apply MIL-S-81733 Type II or MIL-S-8802 Type II, Class A sealant to both sides of EMI strip and mating surface of door sill. For preparation and application of sealing compound (A1-F18AC-SRM-200, WP011 00).

q. While sealant is still wet install EMI strip and retainer.

NOTE

Rivets must be flush or below retainer.

r. Install CSR90483-() rivets wet with MIL-S-81733 Type II or MIL-S-8802 Type II, Class A sealant.

s. Fillet seal strips and retainers.

t. Install milson fasteners and shims (NAVAIR 01-1A-8).

u. Verify electrical bonding strip contact (A1-F18AC-SRM-200, WP004 25).

v. Refinish area (A1-F18AC-SRM-500, WP018 00).

22. **SCREEN, 74A313174.** Screen damaged beyond acceptable limits must be replaced. See figure 1.

Support Equipment Required

None

Materials Required

Specification or Part Number

Nomenclature

304 Wire Cloth	0.125 Grid, 0.020 Wire Stainless Steel Screen
1247-()	Rivet (as required)
MS20470AD()	Rivet (as required)
CSR903B()	Rivet (as required)
MIL-S-83430, CLASS A-1/2	Sealing Compound

a. Open door 3 (A1-F18AC-LMM-010).



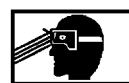
Be careful not to enlarge holes when drilling out rivets. Damage to door can occur.

b. Remove rivets attaching strips and screen to door.

c. Remove strips and screen.

d. Cut to size new screen from 304 wire cloth.

e. Prepare surfaces for electrical bonding (A1-F18AC-LMM-000).



Sealing Compound, MIL-S-83430, Class A-1/2

3

f. Seal surfaces with sealing compound. For sealant preparation and application (A1-F18AC-SRM-200, WP011 00).

g. Install rivets wet with sealing compound, sealant preparation and application (A1-F18AC-SRM-200, WP011 00). Rivet length determined on installation.

h. Refinish area (A1-F18AC-SRM-500, WP018 00).

i. Close door 3 (A1-F18AC-LMM-010).

23. **SCREEN 74A313028.** Screen damaged beyond acceptable limits must be replaced. See figure 1.

Support Equipment Required

None

Materials Required

Specification or Part Number

Nomenclature

304 Wire Cloth	0.125 Grid, 0.020 Wire Stainless Steel Screen
MS20470AD()	Rivet (as required)
MIL-S-83430, CLASS A-1/2	Sealing Compound

a. Open door 3 (A1-F18AC-LMM-010).



Be careful not to enlarge holes when drilling out rivets. Damage to louver can occur.

b. Remove rivets attaching strips and screen to louver.

c. Remove strips and screen.

d. Cut to size new screen from 304 wire cloth.

e. Prepare surfaces for electrical bonding (A1-F18AC-LMM-000).



Sealing Compound, MIL-S-83430, Class A-1/2 3

f. Fay seal surfaces of screen louver surfaces (A1-F18AC-SRM-200, WP011 00).

g. Install rivets wet with sealing compound (A1-F18AC-SRM-200, WP011 00). Rivet length determined on installation.

h. Refinish area (A1-F18AC-SRM-500, WP018 00).

i. Close door 3 (A1-F18AC-LMM-010).

24. **SCREEN, 74A313211.** Screen damaged beyond acceptable limits must be replaced. See figure 1.

Support Equipment Required

None

Materials Required

Specification or Part Number

Nomenclature

304 Wire Cloth	0.125 Grid, 0.020 Wire Stainless Steel Screen
MS20470AD()	Rivet (as required)
CSR903B()	Rivet (as required)
MIL-S-83430, CLASS A-1/2	Sealing Compound

a. Open door 3 (A1-F18AC-LMM-010).

b. Remove louver.



Be careful not to enlarge holes when drilling out rivets. Damage to louver can occur.

c. Remove rivets attaching strips and screen to door.

d. Remove strips and screen.

e. Fabricate new screen assembly from 304 wire cloth.

f. Position new screen and strips to door.

g. Form screen around tabs and ends of louver.

h. Trim screen flush with adjacent structure.

i. Prepare surfaces for electrical bonding (A1-F18AC-LMM-000).



Sealing Compound, MIL-S-83430, Class A-1/2 3

j. Fay seal surfaces with sealing compound. For sealant preparation and application (A1-F18AC-SRM-200, WP011 00).

k. Install rivets wet with sealing compound (A1-F18AC-SRM-200, WP011 00). Rivet length determined on installation.

l. Refinish area (A1-F18AC-SRM-500, WP018 00).

m. Install louver.

n. Close door 3 (A1-F18AC-LMM-010).

25. **SCREEN, 74A313040.** When damaged beyond acceptable limits screen must be replaced. See figure 8.

Support Equipment Required

None

Materials Required

Specification or Part Number

Nomenclature

304 Wire Cloth	0.125 Grid, 0.020 Wire Stainless Steel Screen
NAS1398D4A3	Rivet (as required)
NAS1398D4A4	Rivet (as required)
MS20470AD()	Rivet (as required)
1247-()	Rivet (as required)
CSR903B4-()	Rivet (as required)
MIL-S-83430, CLASS A-1/2	Sealing Compound

a. Open door 3 (A1-F18AC-LMM-010).

b. Remove attaching hardware attaching angle, strip and screen to louver or strip and screen to louver.



Be careful not to enlarge holes when drilling out rivets. Damage to louver can occur.

c. Remove rivets attaching angle, strips and screen to louver.

d. Remove angle, strips and screen.

e. Cut to size new screen from 304 wire cloth.

f. Prepare surfaces for electrical bonding (A1-F18AC-LMM-000).

g. Position new screen and strips to door, folding any excess screen down around outside edge of louver.



Sealing Compound, MIL-S-83430, Class A-1/2

3

h. Fay seal surfaces with sealing compound. For sealant preparation and application (A1-F18AC-SRM-200, WP011 00).

i. Install rivets wet with sealing compound (A1-F18AC-SRM-200, WP011 00). Rivet length determined on installation.

j. Install bolt, washer, and nut.

k. Position angle on screen and louver.

l. Install rivets wet with sealing compound (A1-F18AC-SRM-200, WP011 00).

m. Refinish area (A1-F18AC-SRM-500, WP018 00).

n. Replace attaching hardware to angle, strips and screen.

o. Close door 3 (A1-F18AC-LMM-010).

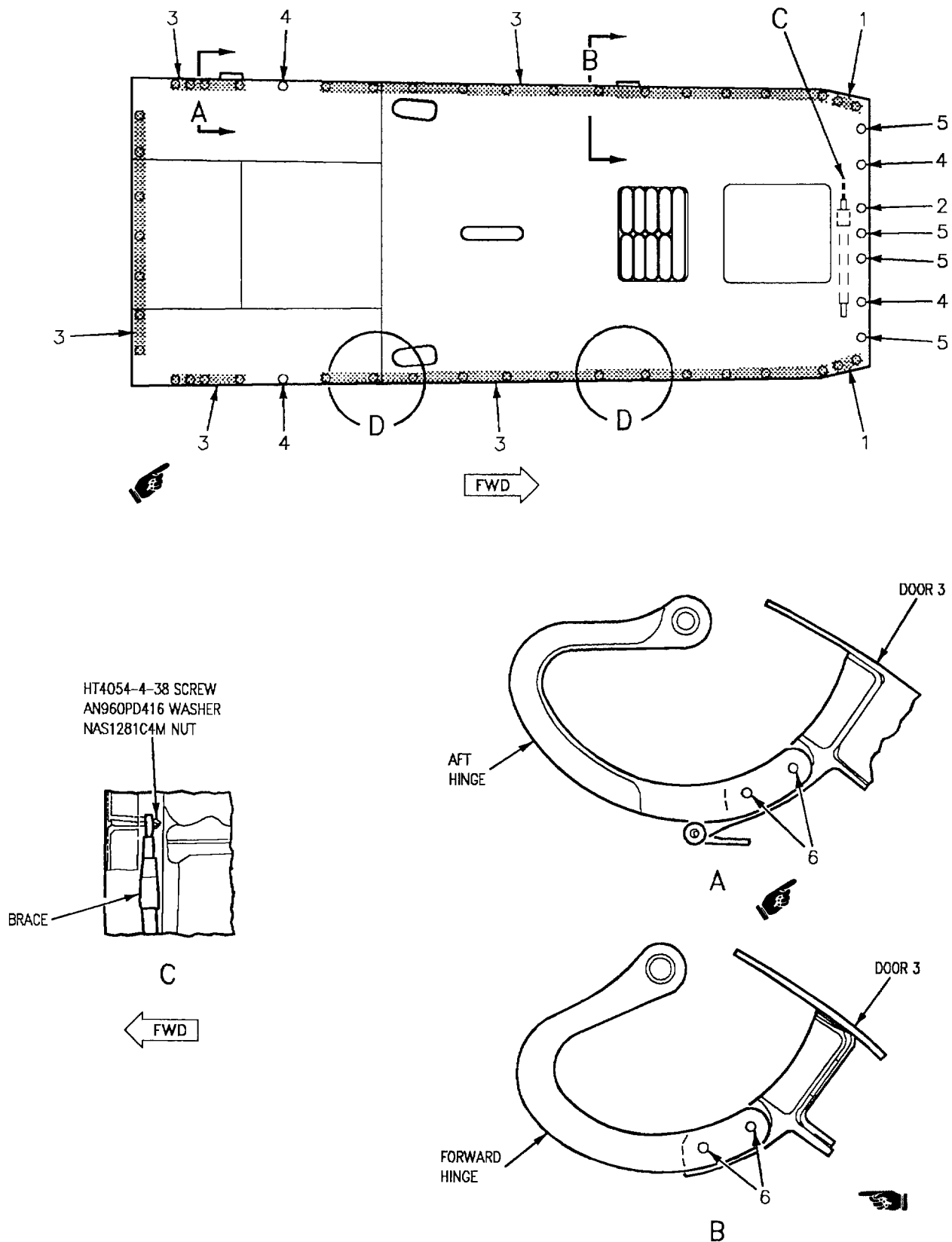


Figure 4. Door 3, Replacement (Sheet 1)

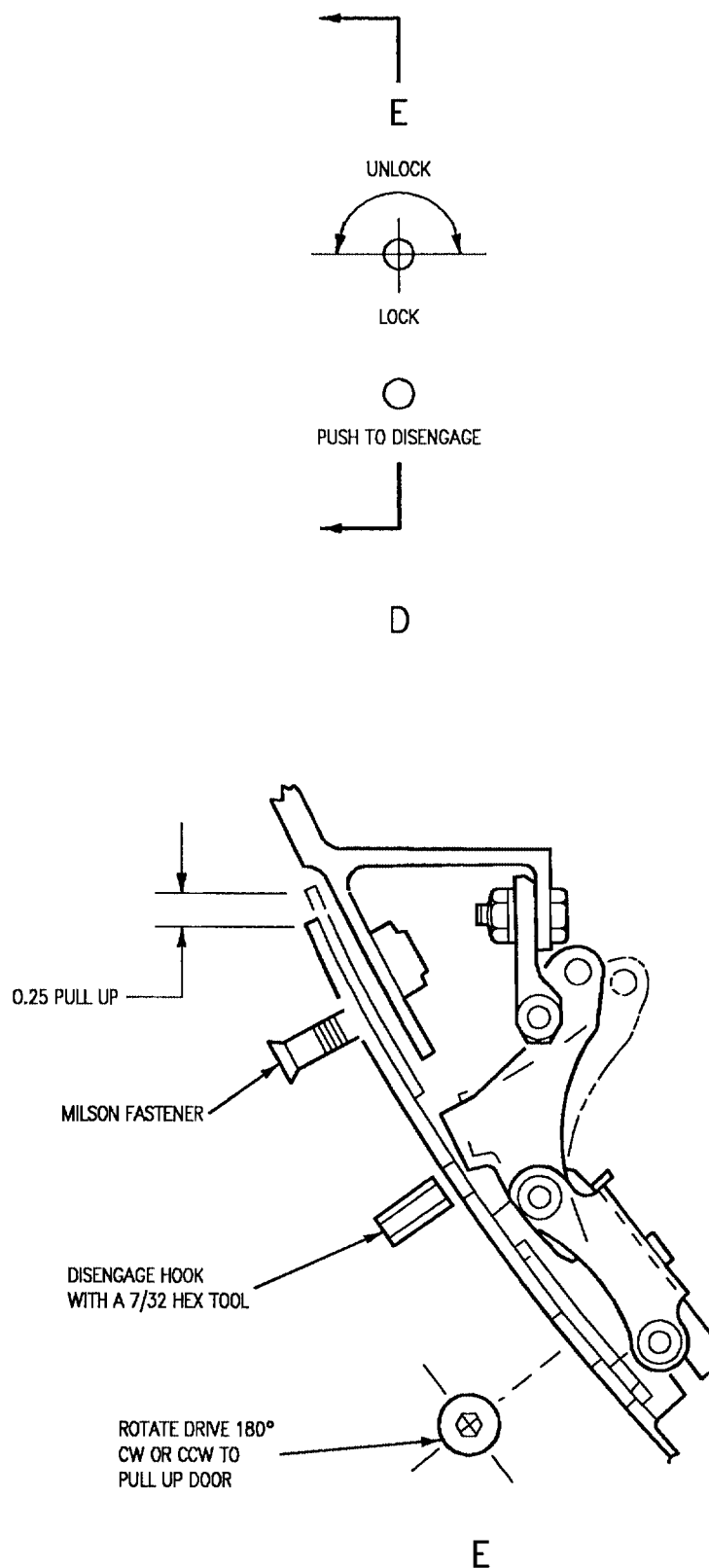


Figure 4. Door 3, Replacement (Sheet 2)

















Idx No.	Eft		Nomenclature	Part Number
1			Receptacle	195012-6-9-3
2			Receptacle	195012-6-12-1
3			Receptacle	195012-6-12-0
4			Receptacle	195012-6-10-2
5			Receptacle	195012-6-11-1
6	       		Bolt Washer Washer Nut Bolt Washer Washer Nut	MB61-3-16 AN960JD10L AN960JD10 H49817-3 NAS6303U16 AN960JD10L AN960JD10 NAS1291C3M
<p style="text-align: center;">LEGEND</p> <p> Hole diameter in skin and structure is 0.385 +0.008 -0.000, in leaf and retainer hole is 0.625 +0.010 -0.010.</p> <p> 161353 THRU 161528.</p> <p> 161702 AND UP.</p>				

Figure 4. Door 3, Replacement (Sheet 3)

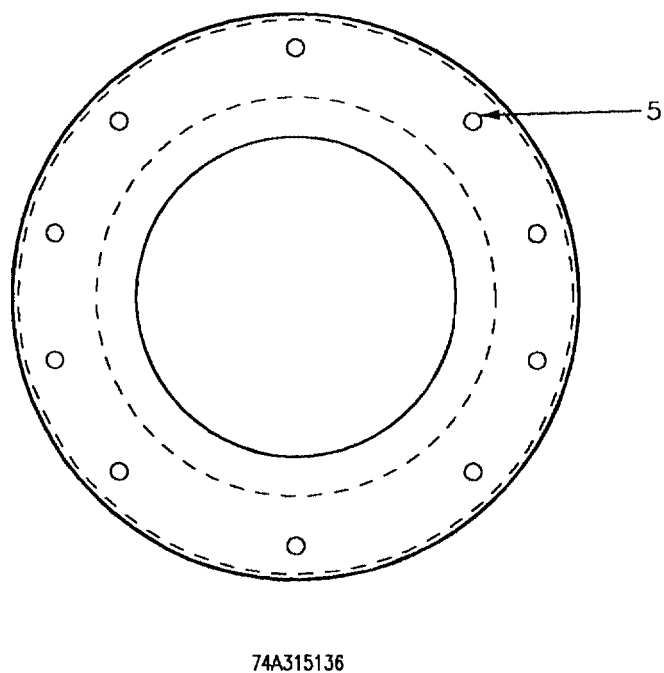
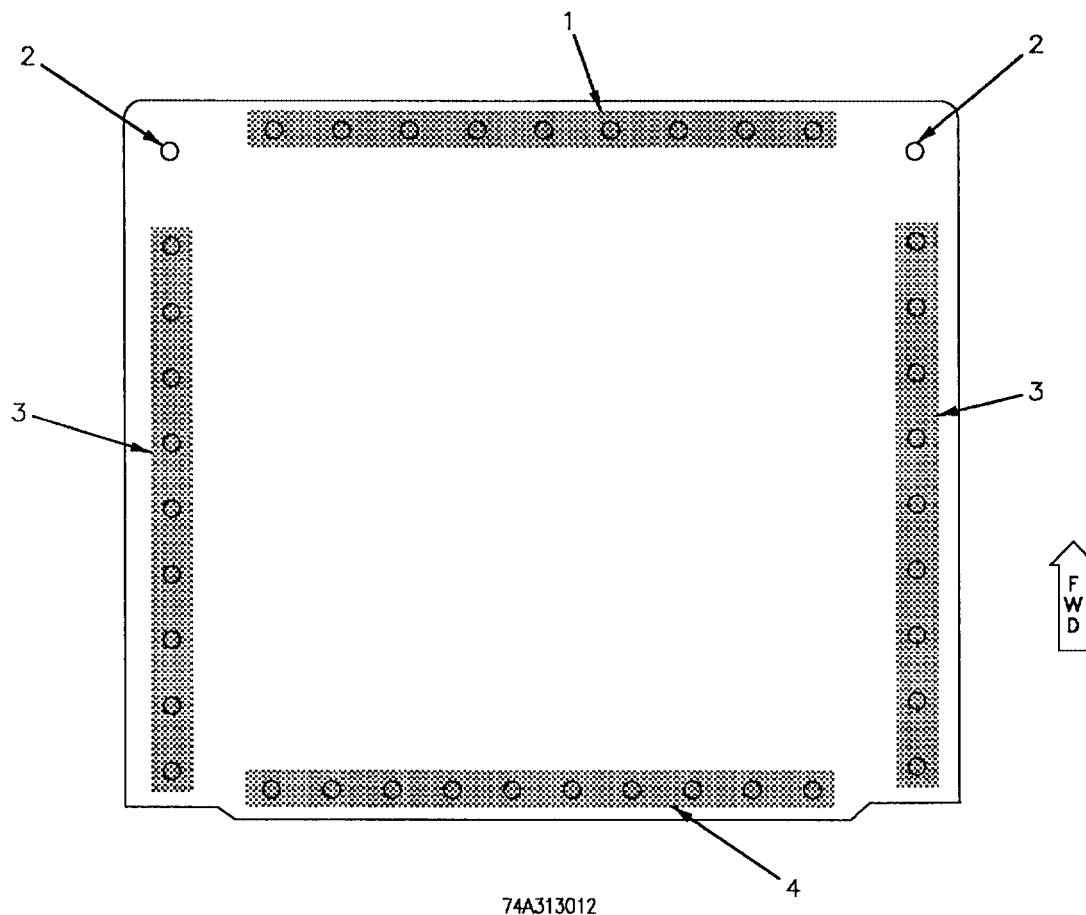


Figure 5. Covers, 74A313012 and 74A315136, Replacement (Sheet 1)










Idx No.	Eft		Nomenclature	Part Number
1			Gang Channel	G14421-2-3-9
2			Plate Nut	MS21059L3
3			Gang Channel	G14421-2-3-10
4			Gang Channel	G14421-2-3-9
5			Nut	NAS1291C3M
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.195 +0.007 -0.000.</p> <p> Hole diameter is 0.196 +0.006 -0.000 in door and 0.191 +0.006 -0.000 in structure.</p> <p> Hole diameter is 0.195 +0.007 -0.000 in door and 0.191 +0.006 -0.000 in structure.</p> <p> Hole diameter is 0.196 +0.005 -0.005.</p>				

Figure 5. Covers, 74A313012 and 74A315136, Replacement (Sheet 2)

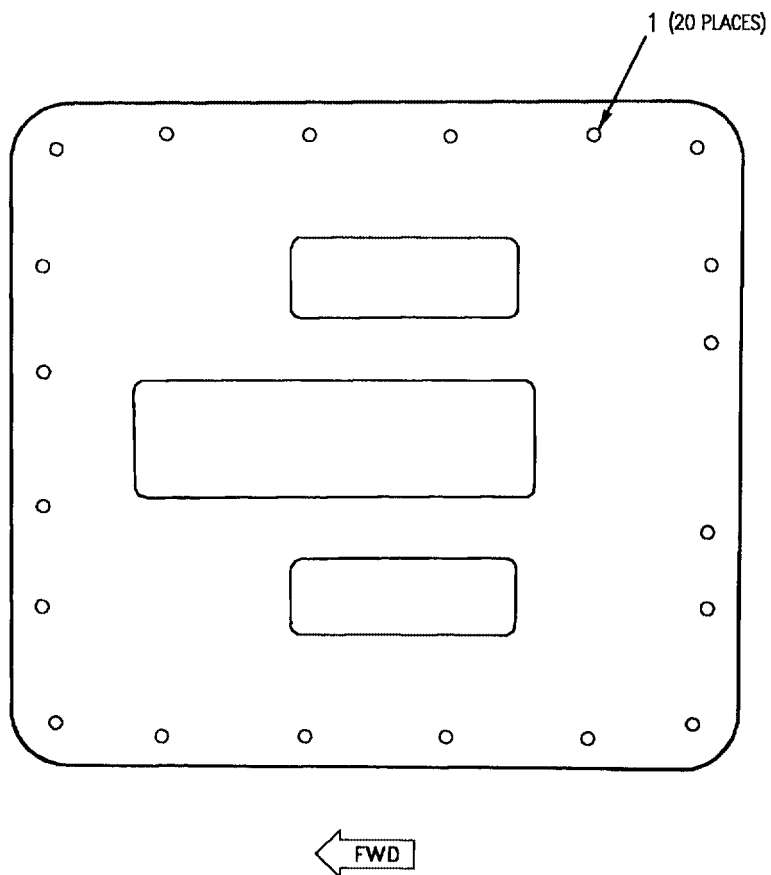


Figure 6. Base, 74A880646, Replacement (Sheet 1)



Idx No.	Eft		Nomenclature	Part Number
1			Plate Nut	F49249E3-1
LEGEND				
 Hole diameter is 0.195 +0.007 -0.000.				

Figure 6. Base, 74A880646, Replacement (Sheet 2)

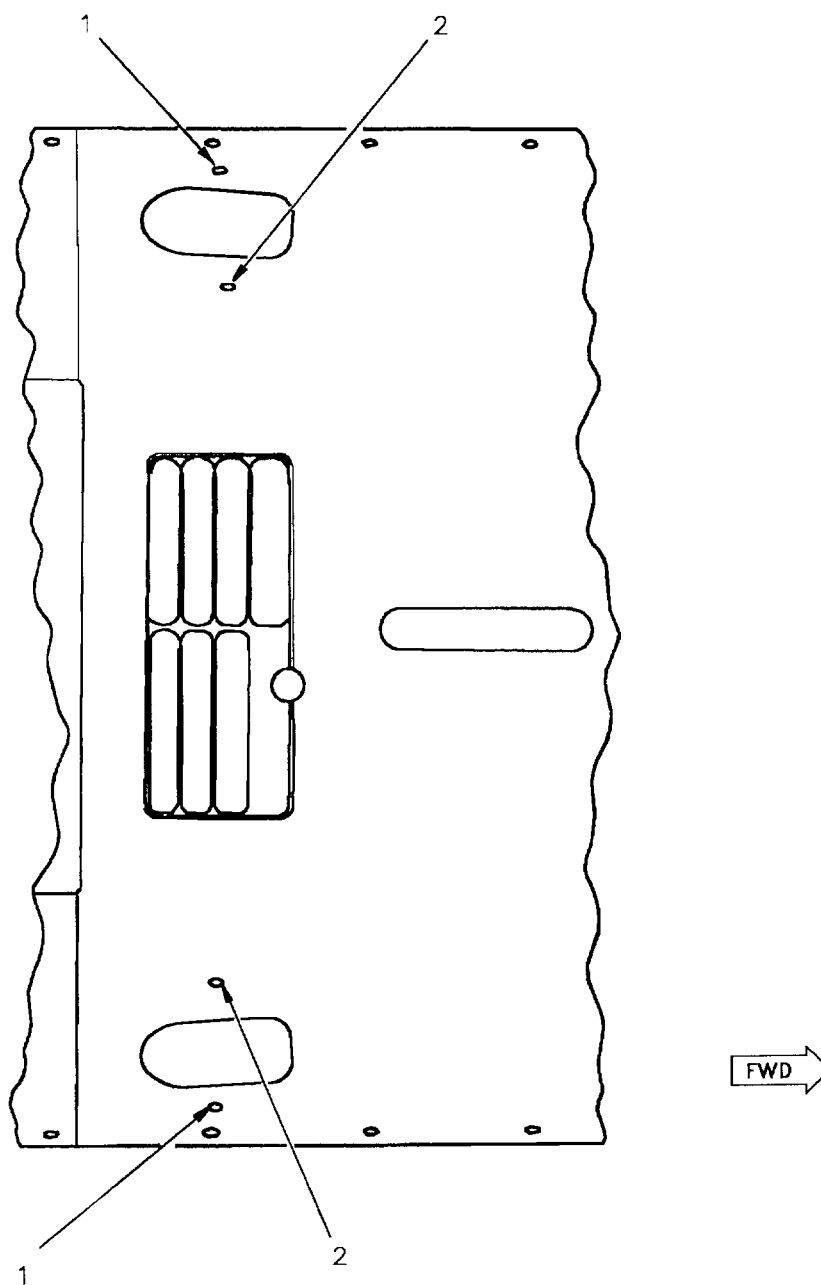


Figure 7. Pitot Static Probe Cover Receptacles Replacement (Sheet 1)




Idx No.	Eft		Nomenclature	Part Number
1			Receptacle	LW1764-4-1-173
2			Receptacle	LW1764-4-1-126
LEGEND				
 Hole diameter is 0.385 +0.008 -0.000.				

Figure 7. Pitot Static Probe Cover Receptacles Replacement (Sheet 2)

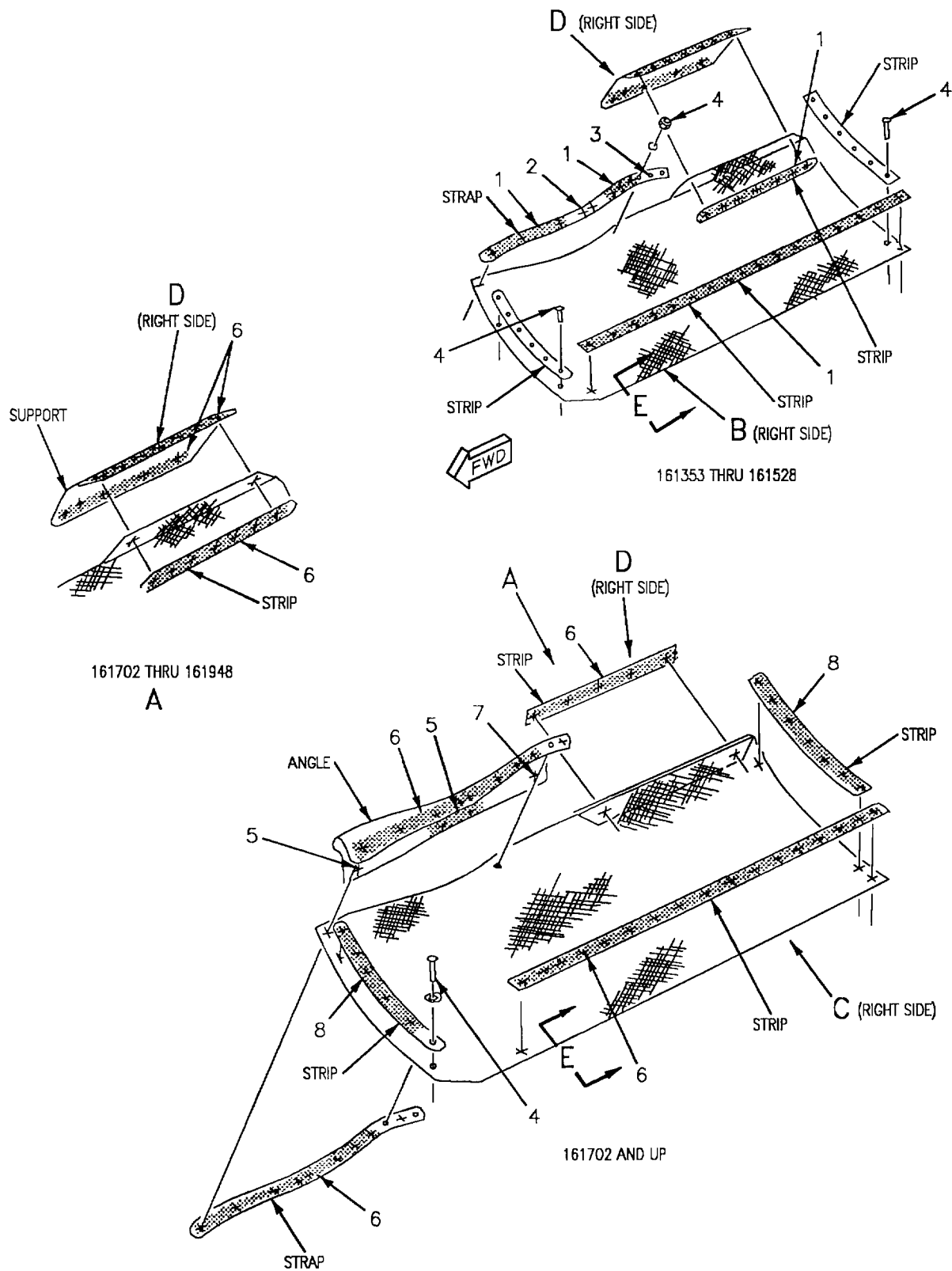
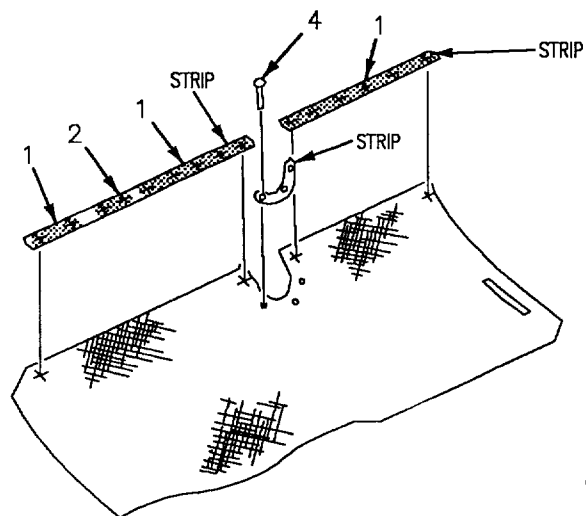
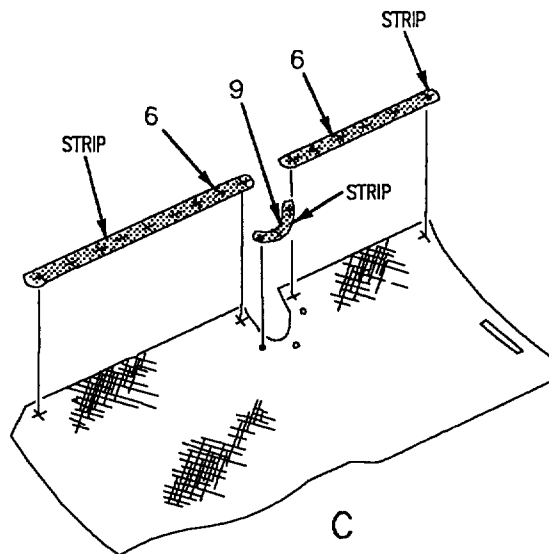


Figure 8. Screen, 74A313040, Replacement (Sheet 1)



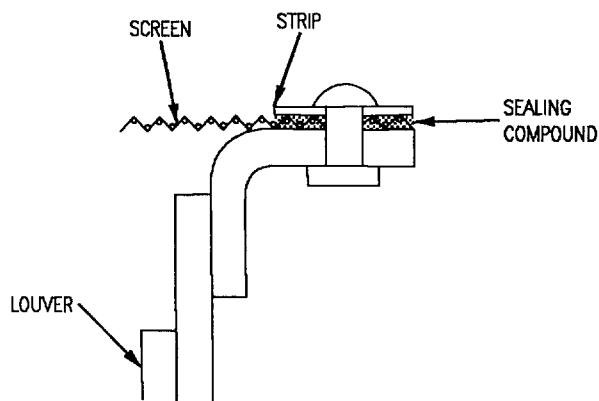
B

161353 THRU 161528
RIGHT SIDE



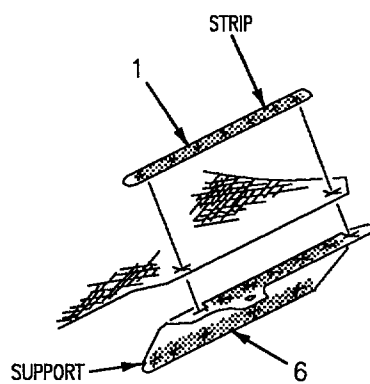
C

161702 AND UP
RIGHT SIDE



E

TYPICAL AROUND
PERIPHERY



D

RIGHT SIDE

Figure 8. Screen, 74A313040, Replacement (Sheet 2)


























Idx No.	Eft		Nomenclature	Part Number
1			Rivet	CSR903B4-4
2			Rivet	CSR903B4-6
3			Rivet	MS20470AD5
4			Bolt Washer Nut	NAS673V2H AN960PD10L NAS1291C3M
5			Rivet	NAS1398D4A4
6			Rivet	MS20470AD4
7			Rivet	NAS1398D4A3
8			Rivet	1247-6
9			Rivet	1247-8
<p style="text-align: center;">LEGEND</p> <p> 161353 THRU 161528.</p> <p> Hole diameter is 0.1285 +0.134 -0.000.</p> <p> Hole diameter is 0.192 +0.198 -0.000.</p> <p> Hole diameter is 0.161 +0.166 -0.000.</p> <p> Hole diameter is 0.195 +0.007 -0.000.</p> <p> 161702 AND UP.</p> <p> Hole diameter is 0.1285 +0.132 -0.000.</p> <p> Hole diameter is 0.128 +0.132 -0.000.</p>				

Figure 8. Screen, 74A313040, Replacement (Sheet 3)

DEPOT MAINTENANCE

STRUCTURE REPAIR

MAINTENANCE FIXTURE, RE174313211, LOADING GUN BAY ACCESS DOOR (DOOR 3)

Reference Material

None

Alphabetical Index

Subject	Page No.
Installation of 74A313040 or 74A313211 Gun Bay Access Door Into Maintenance Fixture	10
Installation of Maintenance Fixture Into Maintenance Stands	6
Installation of Maintenance Stands	1

Record of Applicable Technical Directives

None

1. INSTALLATION OF MAINTENANCE STANDS. See figure 1.

(3) Align centerline of spindles (detail 13) in line within 1.5 degrees of each other.

Support Equipment Required

Part Number or
Type Designation

Nomenclature

RE474000002-1

Maintenance Stands

c. Anchor each stand to floor with six 3/8-inch bolts.

d. Disengage L-pin (detail 14) from spindles (detail 13). Rotate spindles (detail 13) until plate (detail 13C) is parallel to floor with head of stud bolt (detail 121) down.

Materials Required

None

a. Hoist maintenance stands (stands) with overhead hoist attached to hoist fitting (detail 128).

b. Position stands:

(1) Locate stud bolt (detail 121) in center of slot, (detail 13C), view C.

(2) Distance between indentations in heads of stud bolts (detail 121) is 96.6 inches plus or minus 1 inch.

e. Reengage L-pin (detail 14) into spindle (detail 13).

f. Support the adjustable support (detail 12) with an overhead hoist attached to hoist fitting (detail 128), remove cotter pin (detail 110), two nuts (detail 111), washer (detail 112) from T-pin (detail 108) view B.

g. Remove T-pin (detail 108) from lower support (detail 11) and adjustable support (detail 12), view B.

h. Raise adjustable support (detail 12) until the lower surface of the plate (detail 13C) is 44.0 inches above floor. Re-install T-pin (detail 108) into lower

support (detail 11) and adjustable support (detail 12) view B.

i. Install washer (detail 112), two nuts (detail 111) on T-pin (detail 108), tighten nuts (detail 111) and install cotter pin (detail 110) view B.

j. Loosen jamnut (detail 115) and nut (detail 116) on eyebolt (detail 119), rotate eyebolt (detail 119) clear of plate (detail 13C) view A.

k. Swing upper plate (detail 101) clear of plate (detail 13C) view D.

l. Loosen jamnut (detail 115) and adjust nut (detail 114) to obtain a 0.40 inch preload dimension on disc springs (detail 117) two places, each stand, view D.

m. Tighten jamnut (detail 115) after preload dimension is reached, two places, each stand, view D.

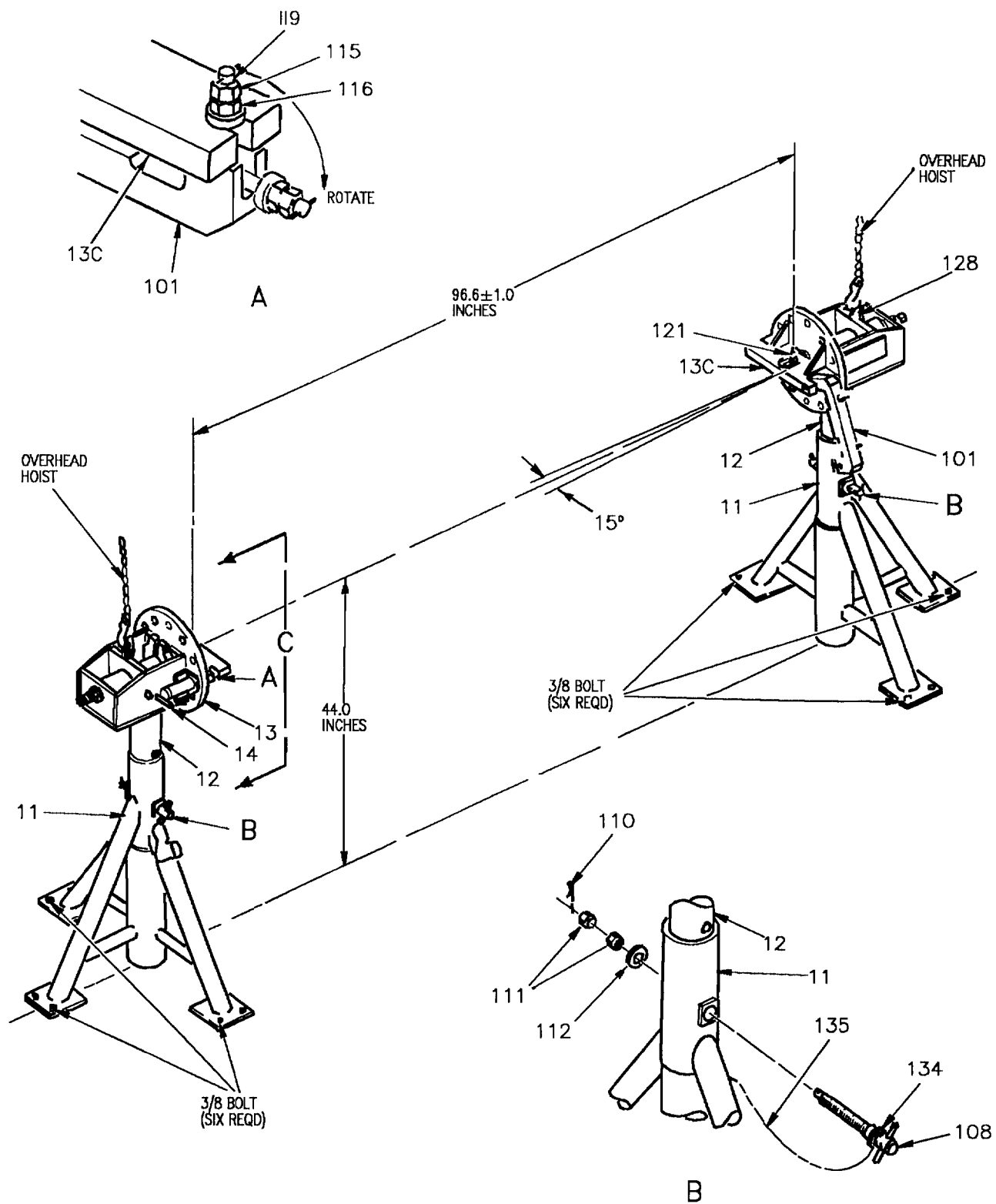


Figure 1. Installation of Maintenance Stands (Sheet 1)

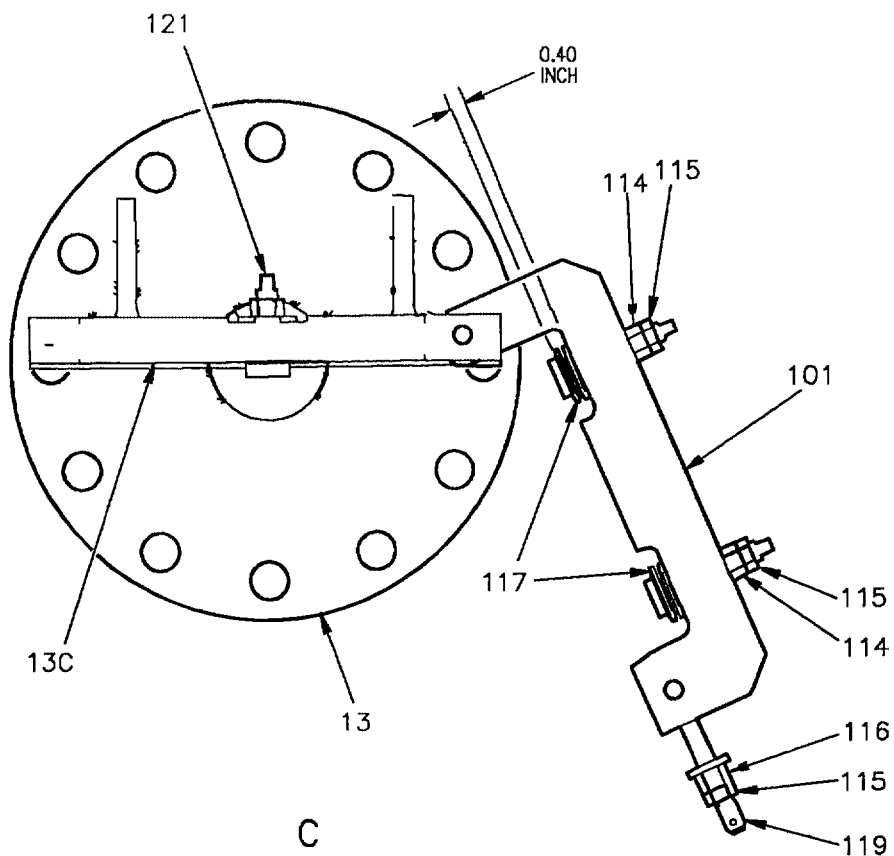


Figure 1. Installation of Maintenance Stands (Sheet 2)

Detail No.	Name	Function
11	Lower support	Supports maintenance fixture.
12	Adjustable support	Supports maintenance fixture.
13	Spindle	Supports and rotates maintenance fixture.
13C	Plate	Supports and positions maintenance fixture.
14	L-Pin	Locates detail 13.
101	Upper plate	Secures maintenance fixture in place.
108	T-Pin	Locates details 11 and 12.
110	Cotter pin	Secures detail 108 in place.
111	Nut	Secures detail 108 in place.
112	Washer	Secures detail 108 in place.
114	Nut	Adjusts preload dimension for detail 117.
115	Jamnut	Secures details 114 and 116 in place.
116	Nut	Secures detail 119 in place.
117	Disc spring	Used for preload dimension.
119	Eyebolt	Secures detail 101.
121	Stud bolt	Aligns maintenance fixture.
128	Hoist fitting	Support maintenance stands while hoisting.
134	Washer	Holds lanyard to T-pin (detail 108).
135	Lanyard	Prevents loss of T-pin (detail 108).

Figure 1. Installation of Maintenance Stands (Sheet 3)

2. **INSTALLATION OF MAINTENANCE
FIXTURE INTO MAINTENANCE
STANDS.** See figure 2.

WARNING

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

None

a. Hoist fixture in the horizontal position with an overhead hoist attached to four hoist fittings (detail 118) on fixture.

Inspect L-pins (detail 14) on stands to be sure they are fully engaged into spindle (detail 13). Disengaged spindles (detail 13) may rotate and could cause injury to personnel or damage to door or fixture.

b. Raise fixture aligning counterbores in end plates (detail 12) on fixture with stud bolt (detail 121) on stands.

c. Rotate upper plate (detail 101) over end plate (detail 12), view A.

d. Rotate eyebolt (detail 119) down into slot in plate (detail 13C), tighten nut (detail 116) clamping fixture to stand and tighten jamnut (detail 115) to lock the nut (detail 116) in place, view A.

e. Disconnect overhead hoist from four hoist fittings (detail 118) on fixture.

f. Secure all loose details.

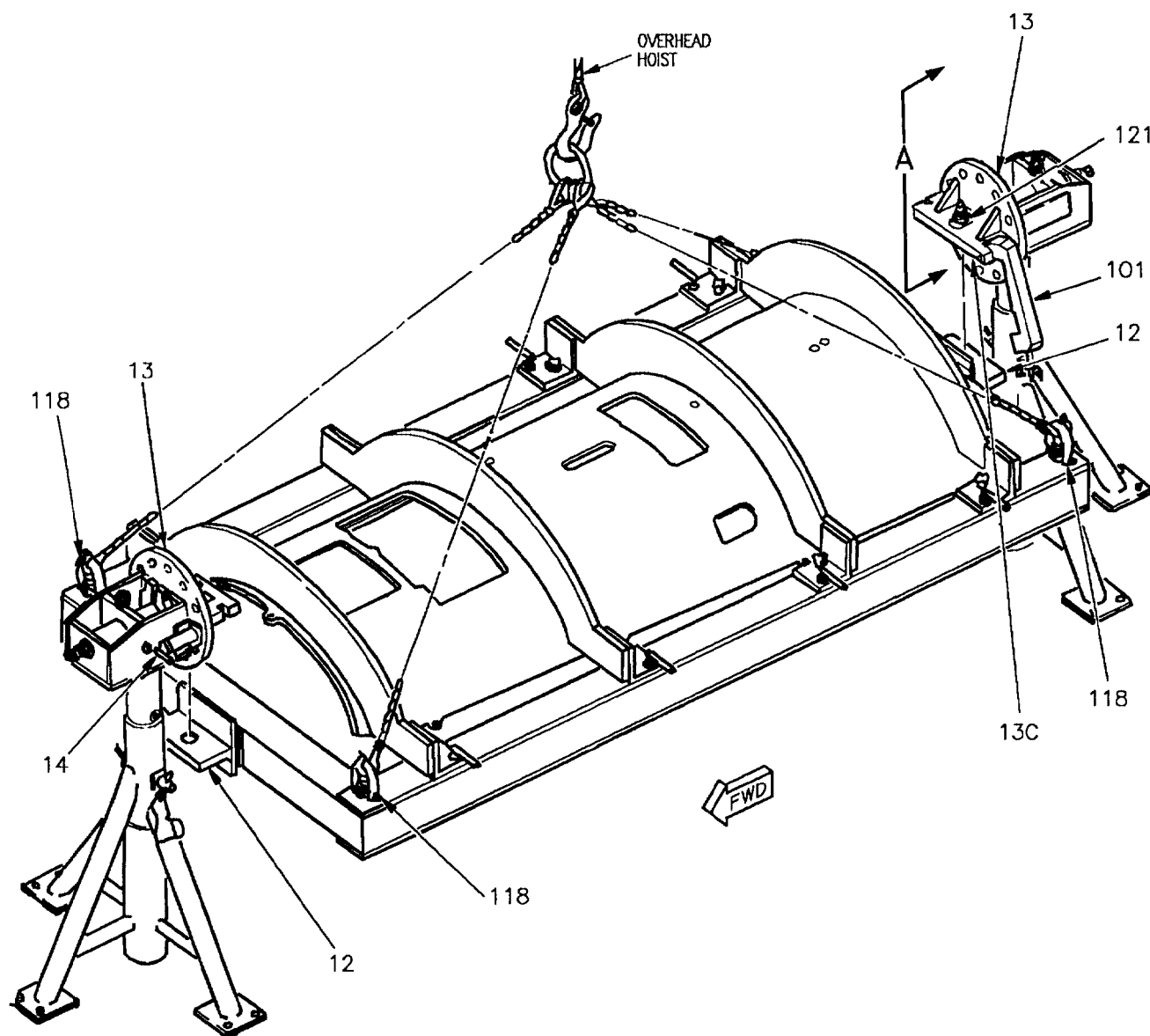
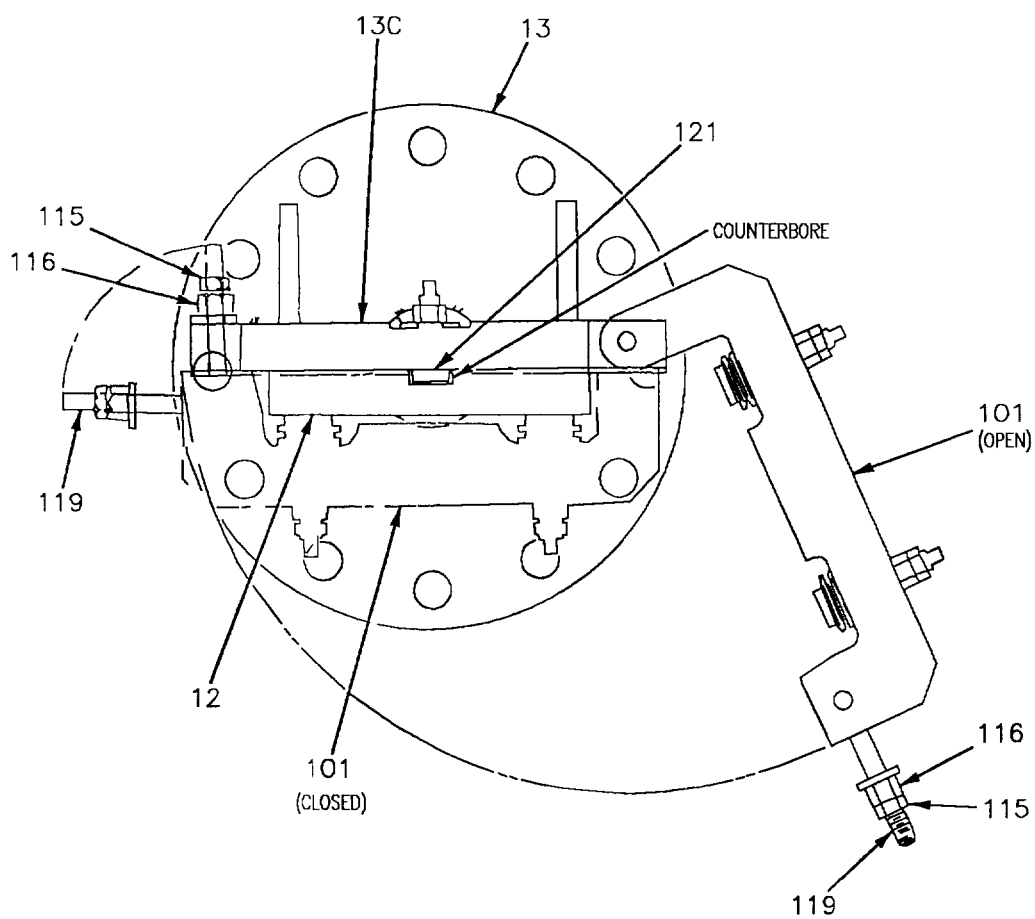


Figure 2. Installation of Maintenance Fixture (Sheet 1)



A

Figure 2. Installation of Maintenance Fixture (Sheet 2)

Detail No.	Name	Function
12	End plate	Aligns and supports maintenance fixture.
13	Spindle	Supports and rotates maintenance fixture.
13C	Plate	Supports and positions maintenance fixture.
14	L-Pin	Locates detail 13.
101	Upper plate	Secures maintenance fixture in place.
115	Jamnut	Secures detail 116 in place.
116	Nut	Secures detail 119 in place.
118	Hoist Fitting	Supports maintenance fixture while hoisting.
119	Eyebolt	Secures detail 101.
121	Stud bolt	Aligns maintenance fixture.

Figure 2. Installation of Maintenance Fixture (Sheet 3)

3. INSTALLATION OF 74A313040 OR 74A313211 GUN BAY ACCESS DOOR INTO MAINTENANCE FIXTURE. See figure 3.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

None

WARNING

Inspect L-pins on stands to be sure they are fully engaged into spindle. A disengaged spindle may rotate and could cause injury to personnel or damage to door or fixture.

a. Locate drill blanket (detail 15) on frame (detail 11) using L-pins (detail 192) four places and L-pins (detail 217) four places; secure with handknobs (detail 189) eight places, view D.

b. Rotate fixture 180° with construction balls on upper surface.

c. Load door into fixture and rest it on pads (detail 214) six places.

d. Align door with fixture by placing 0.125 inch feeler gage along periphery of drill blanket (detail 15) and adjust door assembly until 74A313055 skin is at best fit condition to drill blanket (detail 15), view A.

e. Inspect for twisted door by inserting 0.125 inch feeler gage between 74A313055 skin and drill blanket (detail 15) at door edges, view B.

f. Place 0.125 inch shim between drill blanket (detail 15) and 74A313055 skin at corners of door and C-clamp door to drill blanket (detail 15) at each corner, view C.

g. Inspect for alignment and twist of hinges:

(1) Rotate hinge locators (details 143 and 144) into position; locate by installing L-Pins (detail 142) and secure by installing handknobs (detail 138).

(2) Check twist of hinges by inserting 0.125 inch feeler gage between hinges and hinge locators (details 143 and 144), view E.

(3) Check alignment of hinges by inserting T-pins (detail 148 and 149) through hinge locators (detail 143 and 144) into hinges, view E.

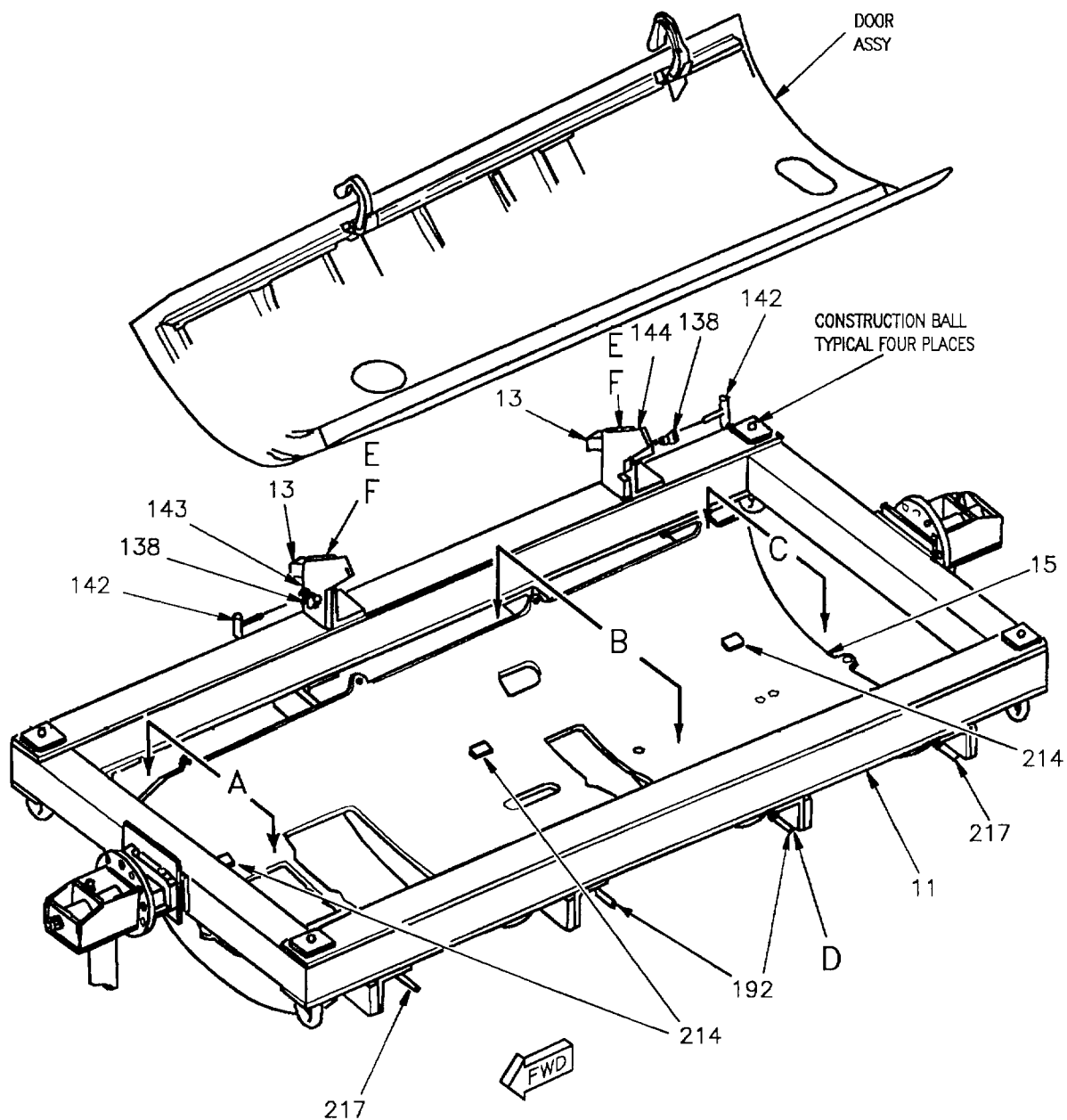
h. Secure door in fixture, view F:

(1) Loosen handknobs (detail 137) and slide clamps (detail 13) into position.

(2) Insert T-pins (detail 148 and 149) through hinge locators (details 143 and 144), hinges and clamps (detail 13).

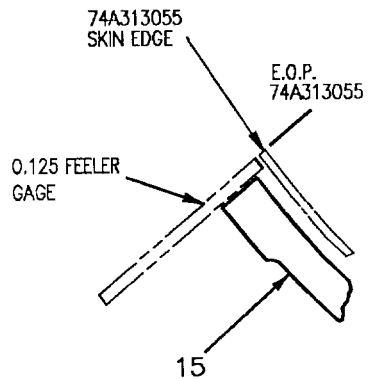
(3) Insert 0.125 inch shim between hinges and hinge locators (detail 143 and 144).

(4) Secure hinges by tightening handknobs (detail 137).

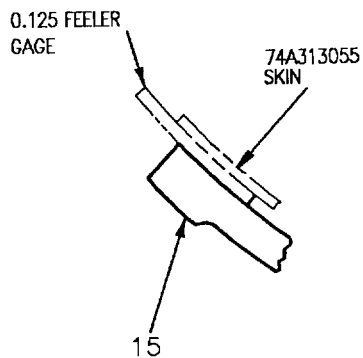


18AC-SRM-221-(45-1)01-SCAN

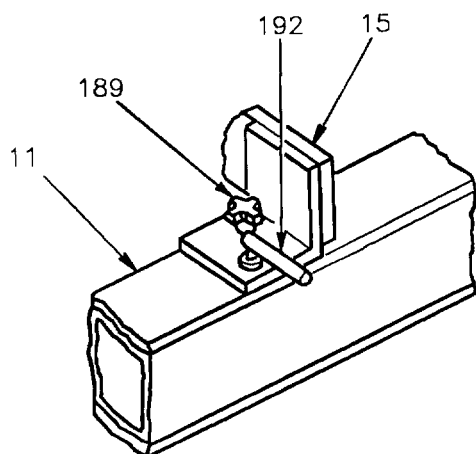
Figure 3. Installation of Door Into Maintenance Fixture (Sheet 1)



A

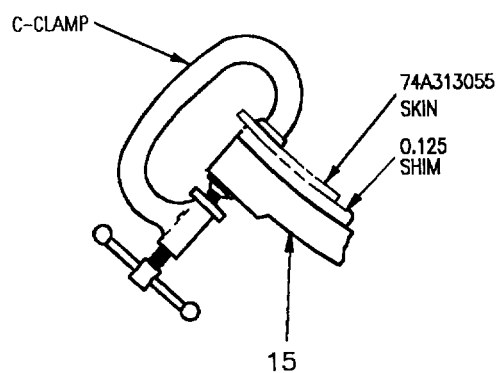


B



D

ROTATED 180°



C

Figure 3. Installation of Door Into Maintenance Fixture (Sheet 2)

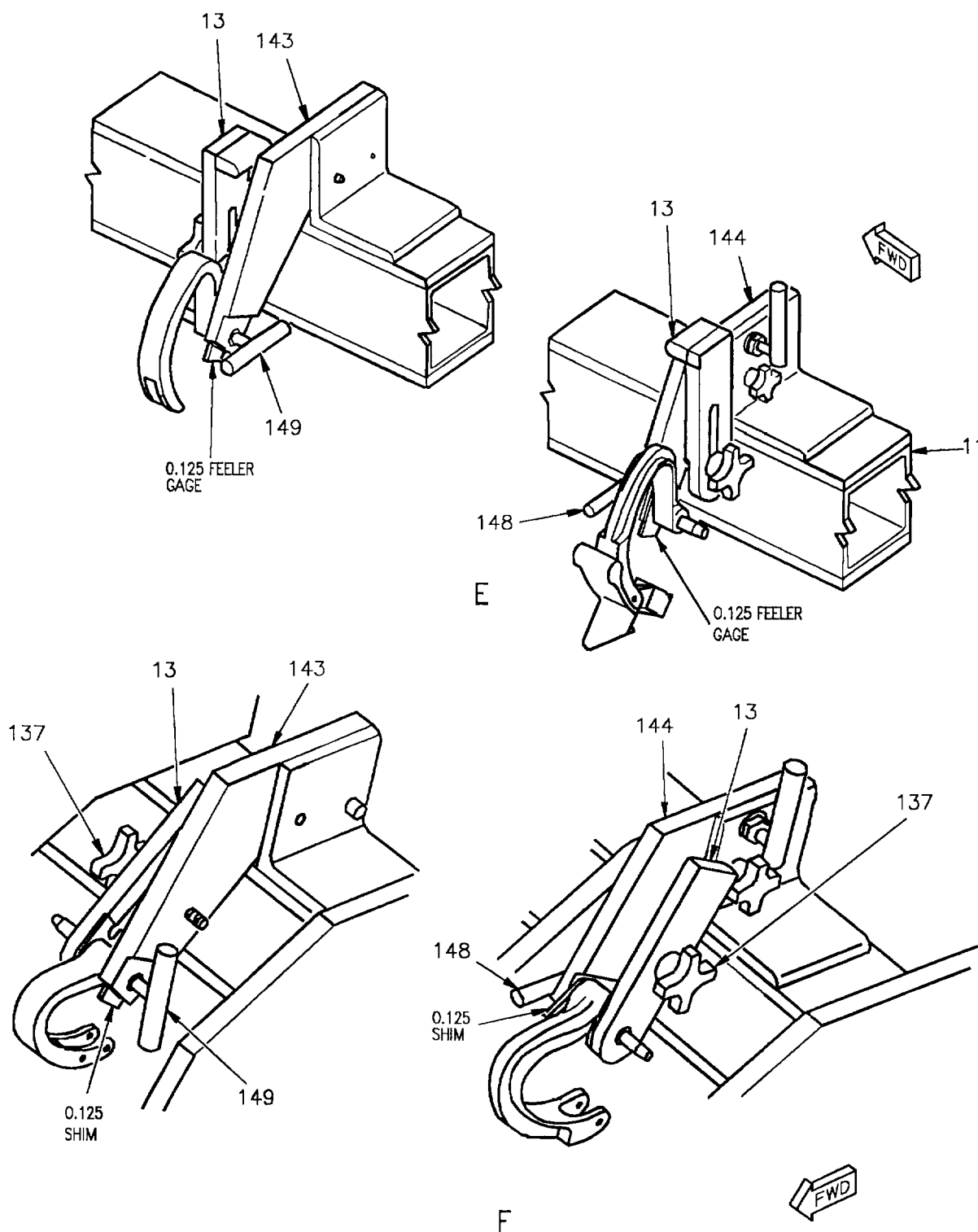


Figure 3. Installation of Door Into Maintenance Fixture (Sheet 3)

Detail No.	Name	Function
11	Frame	Main support for all details.
13	Clamp	Secures hinge to detail 143 and 144.
15	Drill blanket	Supports door and checks for alignment and twist.
137	Handknob	Applies pressure to detail 13.
138	Handknob	Secures detail 143 and 144.
142	L-Pin	Locates detail 143 and 144.
143	Hinge locators	Locates and supports forward hinge.
144	Hinge locators	Locates and supports aft hinge.
148	T-Pin	Locates hinge to details 13 and 144.
149	T-Pin	Locates hinge to details 13 and 143.
189	Handknob	Secures detail 15 to frame.
192	L-Pin	Locates detail 15 on frame.
214	Pad	Provides rest for door assembly.
217	L-Pin	Locates detail 15 on frame.

Figure 3. Installation of Door Into Maintenance Fixture (Sheet 4)

DEPOT MAINTENANCE
STRUCTURE REPAIR
DOOR 3 COMPONENT REPLACEMENT

Reference Material

Structure Repair, General Information	A1-F18AC-SRM-200
Gang Channel and Plate Nut Identification and Repair	WP004 05
Adhesive, Cement, and Sealant; Preparation and Application	WP011 00
Structure Repair, Forward Fuselage	A1-F18AC-SRM-220
Door 3	WP013 00
Maintenance Fixture, RE174313211, Loading Gun Bay Access Door (Door 3)	WP013 01
Aircraft Corrosion Control	A1-F18AC-SRM-500
Nose Barrel Finish System and Markings	WP018 00

Alphabetical Index

Subject	Page No.
Angle, 74A313180, Replacement	77
Bracket, 74A313059, Inspection and Replacement	97
Former, 74A313043, Inspection and Replacement	1
Former, 74A313048, Inspection and Replacement	8
Former, 74A313185, Inspection and Replacement	14
Former, 74A313186, Inspection and Replacement	22
Former, 74A313187, Inspection and Replacement	27
Former, 74A313188, Inspection and Replacement	33
Louvers, 74A313210 or 74A313204, Replacement	60
Pitot Probe Support, 74A313110, Replacement	89
Plate, 74A880647, Replacement	108
Sill, 74A313041 and 74A313042, Inspection and Replacement	46
Sill, 74A313049, Inspection and Replacement	102
Skin, 74A313055, Replacement	113
Support, 74A313219, Replacement	83
Tee, 74A315059, Replacement	54

Record of Applicable Technical Directives

None

1. FORMER, 74A313043, INSPECTION AND REPLACEMENT. See figure 1.

Materials Required

Support Equipment Required		Specification or Part Number		Nomenclature
Part Number or Type Designation	Nomenclature			
		CCC-C-440, TYPE 1, CLASS 1		Cheesecloth
RE174313211-1	Maintenance Fixture - Gun Bay Door	TT-M-261		Methyl Ethyl Ketone
RE474000002-1	Maintenance Stands	MIL-S-83430, CLASS A-1/2		Sealing Compound

2. INSPECTION.

- a. Make sure door is loaded correctly and secure (WP013 01).
- b. Position former locator (detail 125) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
- c. Check alignment and twist of 74A313043 former by inserting 0.125 inch shim between former locator (detail 125) and 74A313043 former.
- d. Replace former if damaged or out of tolerance.

3. REPLACEMENT.

- a. Remove fasteners holding former to structure. See figure 2 for fastener location.
- b. Remove damaged former.
- c. Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

- d. Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.
- e. Position former locators (details 25, 110, 115 and 125) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
- f. Position new 74A313043 former next to former locator (detail 125) and locate by installing L-pin (de-

tail 198) through former locator (detail 125) into 74A313043 former tooling hole.

- g. Insert 0.125 inch shims between formers and former locators (details 25, 110, 115 and 125) and C-clamp together at as many points as necessary to securely hold door assembly.
- h. Rotate fixture and remove drill blanket (detail 15).
- i. Mate drill from skin to former and install temporary fasteners; see figure 2 for hole diameters.
- j. Mate drill from structure to former; see figure 2 for hole diameters.

k. Loosen C-clamps and remove 74A313043 former from former locator (detail 125).

l. Apply finish system (A1-F18AC-SRM-500, WP018 00).

m. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

3

n. Apply sealing compound per substeps below:

(1) Lay seal area between skin and former (A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 2 and (A1-F18AC-SRM-200, WP011 00).

o. Apply finish system (A1-F18AC-SRM-500, WP018 00).

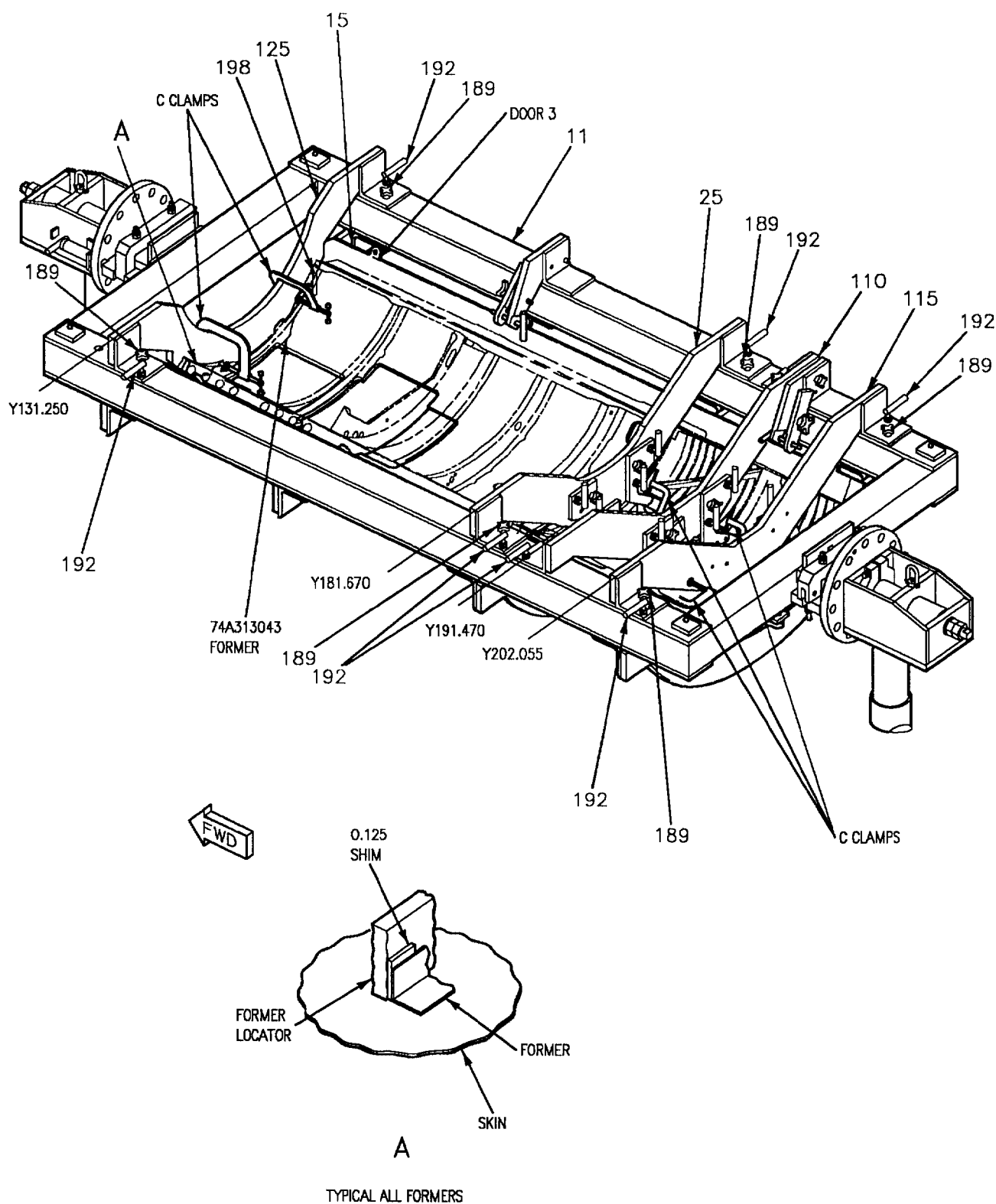
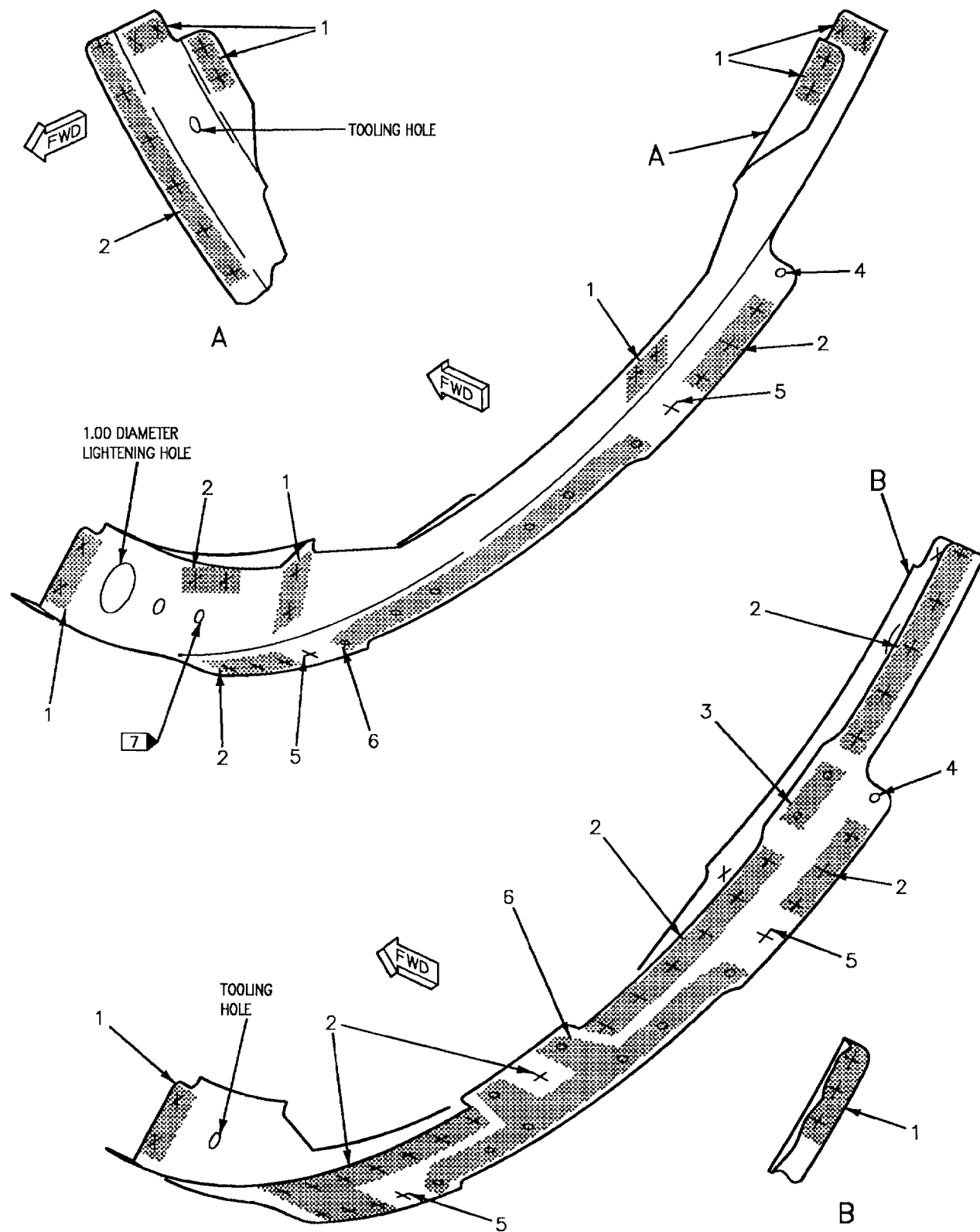


Figure 1. Inspection or Replacement - 74A313043 Former (Sheet 1)

Detail No.	Name	Function
11	Frame	Main support for.all details.
15	Drill blanket	Supports door and checks for alignment and twist.
25	Former locator	Locates former at Y179.795.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
125	Former locator	Locates former at Y131.375.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
198	L-Pin	Locates former to former locator.

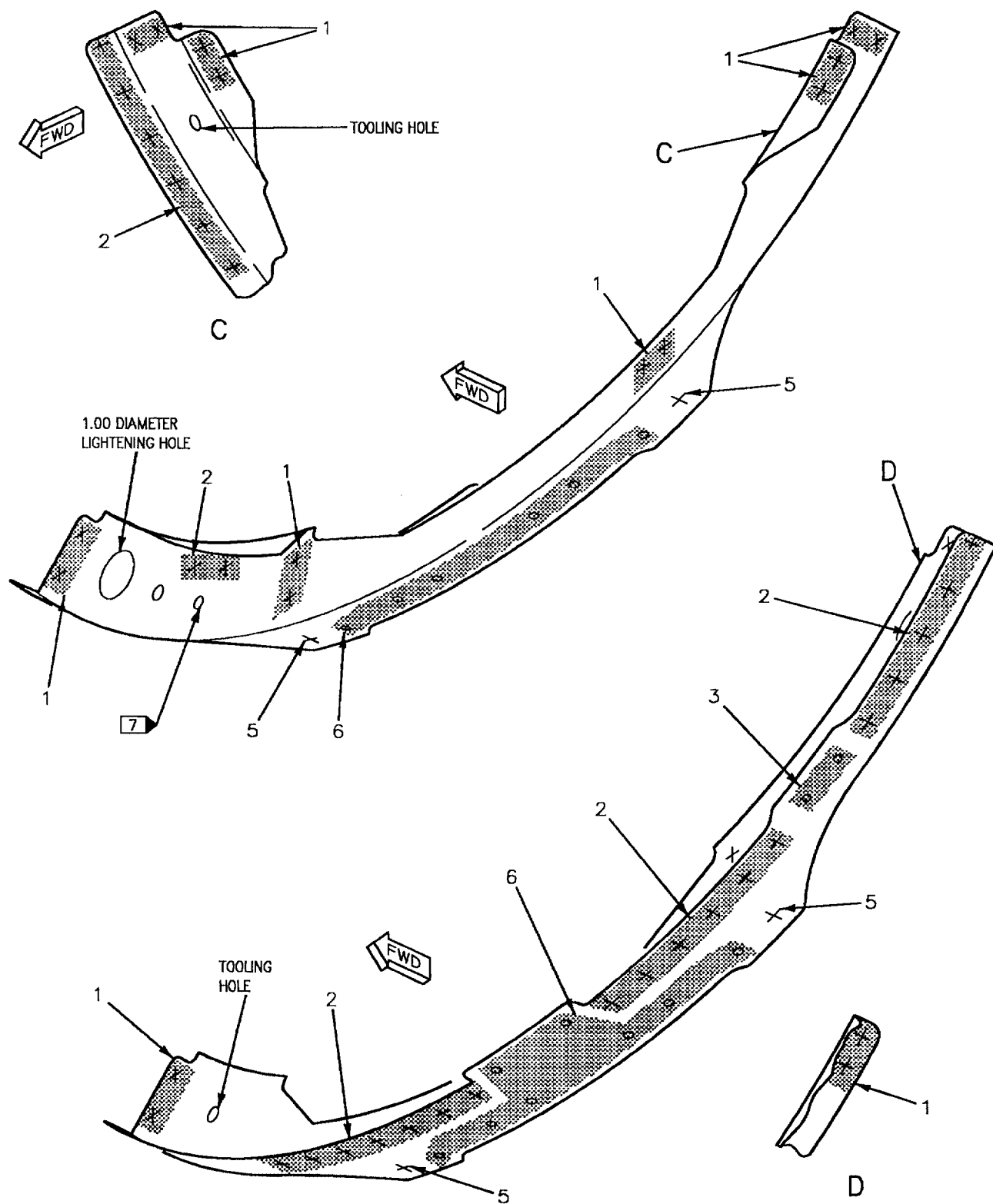
Figure 1. Inspection or Replacement - 74A313043 Former (Sheet 2)



74A313043-2007

Figure 2. Former, 74A313043, Fastener Index (Sheet 1)

18AC-SRM-221-(47-1)01-CATI



74A313043-2005

Figure 2. Former, 74A313043, Fastener Index (Sheet 2)

18AC-SRM-221-(47-2)01-CAT1















Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20470AD5
2			Rivet	BRFS5AD
3			Pin Collar	NAS2105V04 NAS1080AG05
4			Pin Collar	NAS2706V04 NAS1080AG06
5			Rivet	BRFS5AD6
6		 	Bolt Platenut	NAS663V4HT F49249E3-1
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.161 +0.005 -0.000.</p> <p> Hole diameter is 0.1600 +0.0025 -0.0000.</p> <p> Hole diameter is 0.185 +0.003 -0.000.</p> <p> Hole diameter is 0.192 +0.006 -0.000.</p> <p> Hole diameter is 0.191 +0.006 -0.000.</p> <p> Attach platenut using MS20426AD3 rivets.</p> <p> Hole diameter is 0.225 +0.007 -0.000.</p>				

Figure 2. Former, 74A313043, Fastener Index (Sheet 3)

4. **FORMER, 74A313048, INSPECTION AND REPLACEMENT.** See figure 3.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

5. **INSPECTION.**

- a. Make sure door is loaded correctly and secure (WP013 01).
- b. Position former locator (detail 126) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
- c. Check alignment and twist of 74A313048 former by inserting 0.125 inch shim between former locator (detail 126) and 74A313048 former.
- d. Replace former if damaged or out of tolerance.

6. **REPLACEMENT.**

- a. Remove fasteners holding former to structure. See figure 4 for fastener location.
- b. Remove damaged former.
- c. Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

- d. Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.

- e. Position former locators (details 25, 110, 115, 125 and 126) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

- f. Position new 74A313048 former next to former locator (detail 126) and locate by installing L-pin (detail 198) through former locator (detail 126) into 74A313048 former tooling hole.

- g. Insert 0.125 inch shims between formers and former locators (details 25, 110, 115, 125 and 126) and C-clamp together at as many points as necessary to securely hold door assembly.

- h. Rotate fixture and remove drill blanket (detail 15).

- i. Mate drill from skin to former and install temporary fasteners. See figure 4 for hole diameters.

- j. Mate drill from structure to former; see figure 4 for hole diameters.

- k. Loosen C-clamps and remove 74A313048 former from former locator (detail 126).

- l. Apply finish system (A1-F18AC-SRM-500, WP018 00).

- m. Clean area receiving sealant with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

3

- n. Apply sealing compound per substeps below:

- (1) Fay seal area between skin and former (A1-F18AC-SRM-200, WP011 00).

- (2) Wet install fasteners, see figure 4 and (A1-F18AC-SRM-200, WP011 00).

- o. Apply finish system (A1-F18AC-SRM-500, WP018 00).

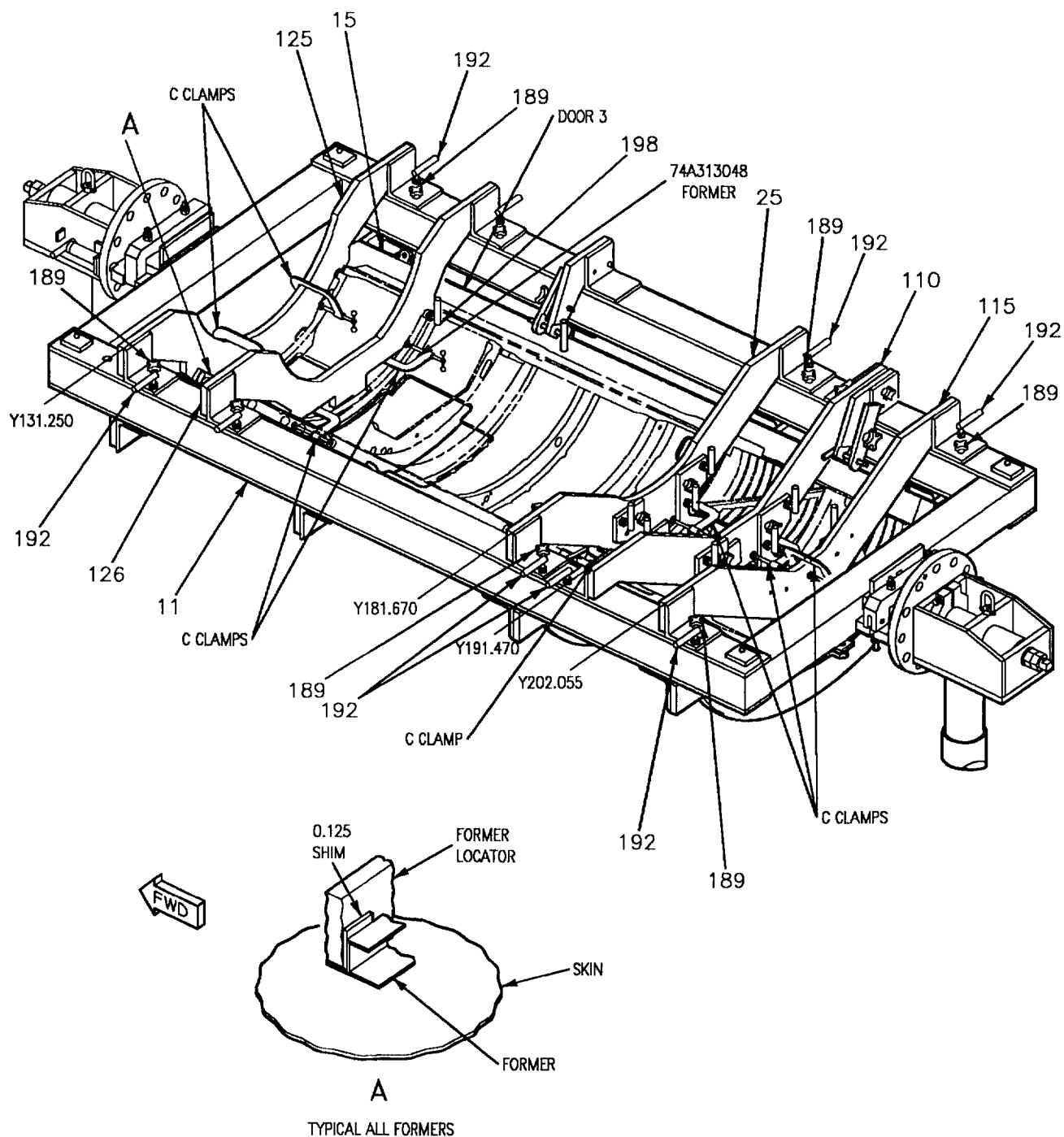
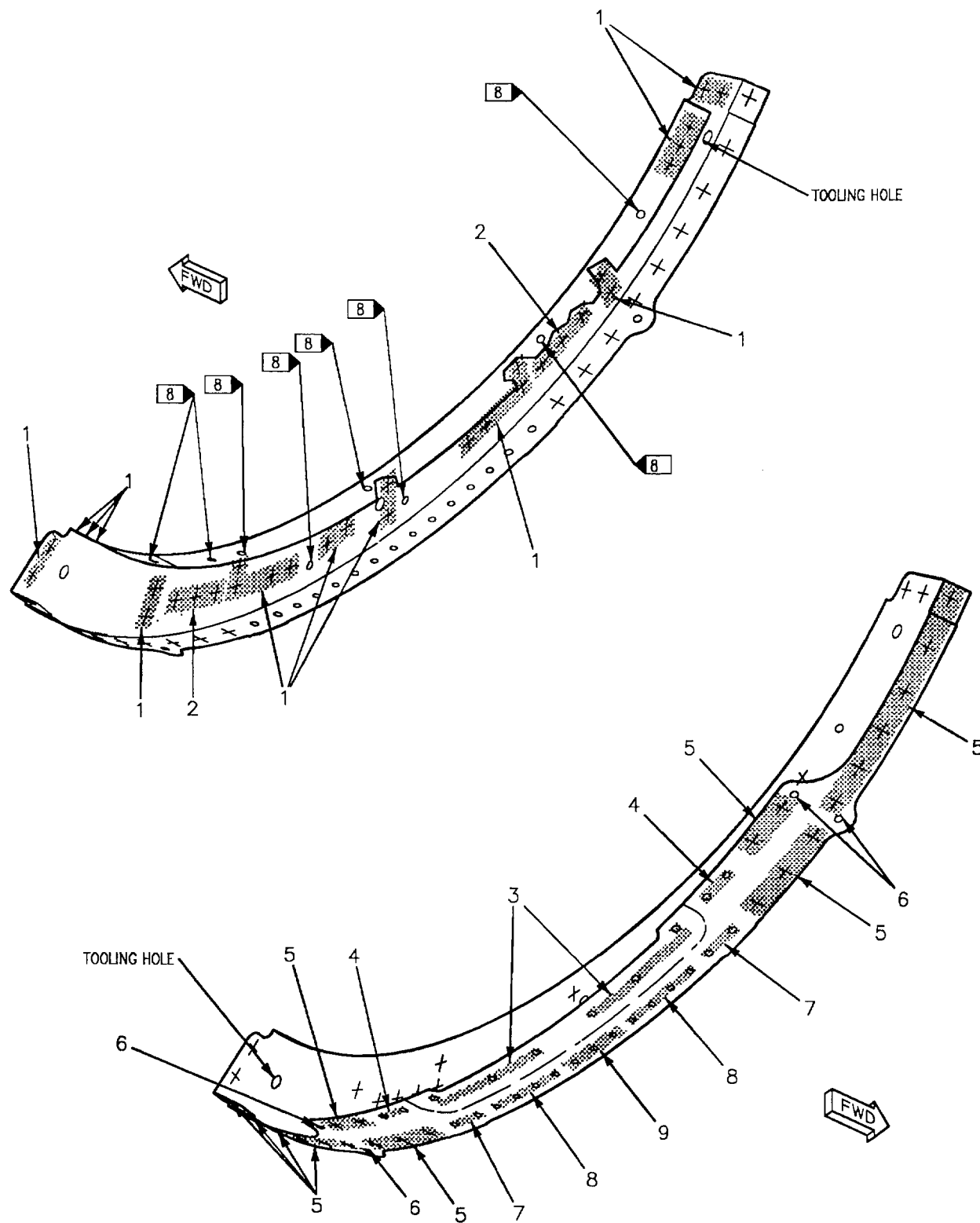


Figure 3. Inspection or Replacement - 74A313048 Former (Sheet 1)

18AC-SRM-221-(48-1)01-CATI

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Supports door and checks for alignment and twist.
25	Former locator	Locates former at Y179.795.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
125	Former locator	Locates former at Y131.375.
126	Former locator	Locates former at Y142.250.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
198	L-Pin	Locates former.

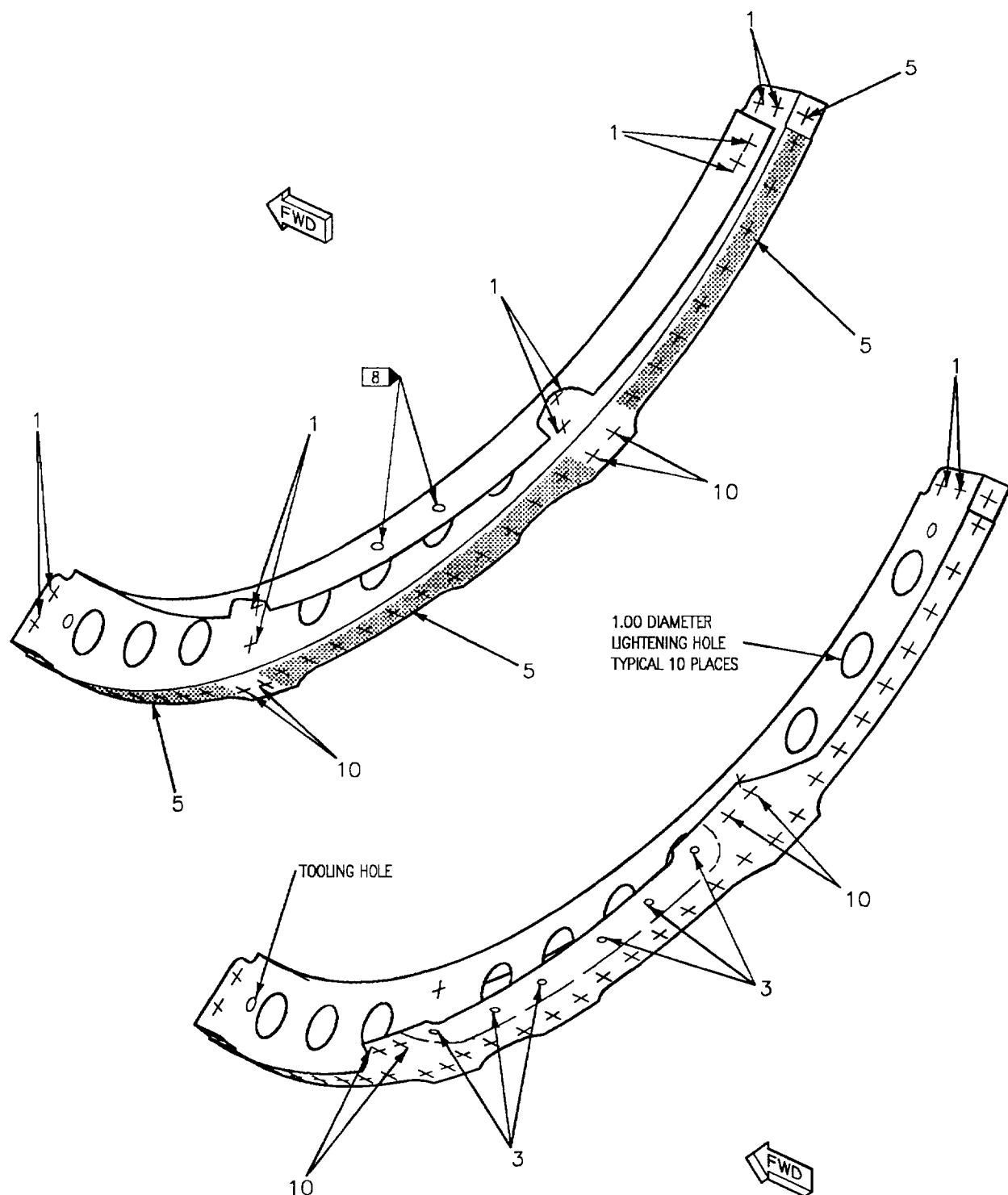
Figure 3. Inspection or Replacement - 74A313048 Former (Sheet 2)



74A313048-2011

Figure 4. Former, 74A313048, Fastener Index (Sheet 1)

18AC-SRM-221-(49-1)01-CAT1



74A313048-2005

Figure 4. Former, 74A313048, Fastener Index (Sheet 2)

18AC-SRM-221-(49-2)01-CAT I




















Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20470AD5
2			Rivet	MS20470AD4
3		 	Bolt Platenut	NAS663V4HT F49249E3-1
4			Pin Collar	2705MU-4 NAS1080AG04
5			Rivet	BRFS5AD
6			Pin Collar	NAS2706V04 NAS1080AG06
7			Pin Collar	HLT51TB6-5 SW1000-6M
8			Pin Collar	HLT311TA5-5 SW1000-5M
9			Pin Collar	HLT311TA5-4 SW1000-5M
10			Rivet	BRFS6AD
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.161 +0.005 -0.000.</p> <p> Hole diameter is 0.128 +0.006 -0.000.</p> <p> Hole diameter is 0.191 +0.006 -0.000.</p> <p> Attach platenut using MS20426AD3 rivets.</p> <p> Hole diameter is 0.1600 +0.0025 -0.0000.</p> <p> Hole diameter is 0.185 +0.003 -0.000.</p> <p> Hole diameter is 0.192 +0.006 -0.000.</p> <p> Hole diameter is 0.195 +0.007 -0.000.</p>				

Figure 4. Former, 74A313048, Fastener Index (Sheet 3)

7. FORMER, 74A313185, INSPECTION AND REPLACEMENT. See figure 5.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

8. INSPECTION.

a. Make sure door is loaded correctly and secure (WP013 01).

b. Position former locator (detail 122) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

c. Check alignment and twist of 74A313185 former by inserting 0.125 inch shim between former locator (detail 122) and 74A313185 former.

d. Replace former if damaged or out of tolerance.

9. REPLACEMENT.

a. Remove fasteners holding former to structure. See figure 6 for fastener location.

b. Remove damaged former.

c. Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

d. Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.

e. Position former locators (details 25, 110, 115, 122, and 125) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

f. Locate 74A313185 plate by inserting L-pin (detail 198) through former locator (detail 122) into 74A313185 plate tooling hole, two places.

g. Insert 0.125 inch shim between formers and former locators (details 25, 110, 115, 122, and 125) and C-clamp together at as many points as necessary to securely hold door assembly.

h. Locate 74A313185 hat to best fit condition between 74A313041 and 74A313042 sills; C-clamp to plate and skin where possible.

i. Locate and drill fastener pattern in 74A313185 plate and hat.

j. Loosen C-clamps and remove 74A313185 plate and hat.

k. Install fasteners securing 74A313185 plate to hat. See figure 6 (1, 2).

NOTE

Plate riveted to hat to make up 74A313185 former assembly.

l. Reinstall 74A313185 former per steps f through h.

m. Rotate fixture and remove drill blanket (detail 15).

n. Mate drill from skin to former and install temporary fasteners. See figure 6 for hole diameters.

o. Mate drill from structure to former; see figure 6 for hole diameters.

p. At hole location 149, 150, 151 and 152:

(1) Install drill bushing (detail 206).

(2) Drill 0.195 +0.007 -0.000 diameter hole four places; see figure 6 for hole location.

q. Loosen C-clamps and remove 74A313185 former from former locator (detail 122).

r. Apply finish system (A1-F18AC-SRM-500, WP018 00).

s. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

3

t. Apply sealing compound per substeps below:

(1) Fay seal area between skin and former (A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 6 and (A1-F18AC-SRM-200, WP011 00).

u. Apply finish system (A1-F18AC-SRM-500, WP018 00).

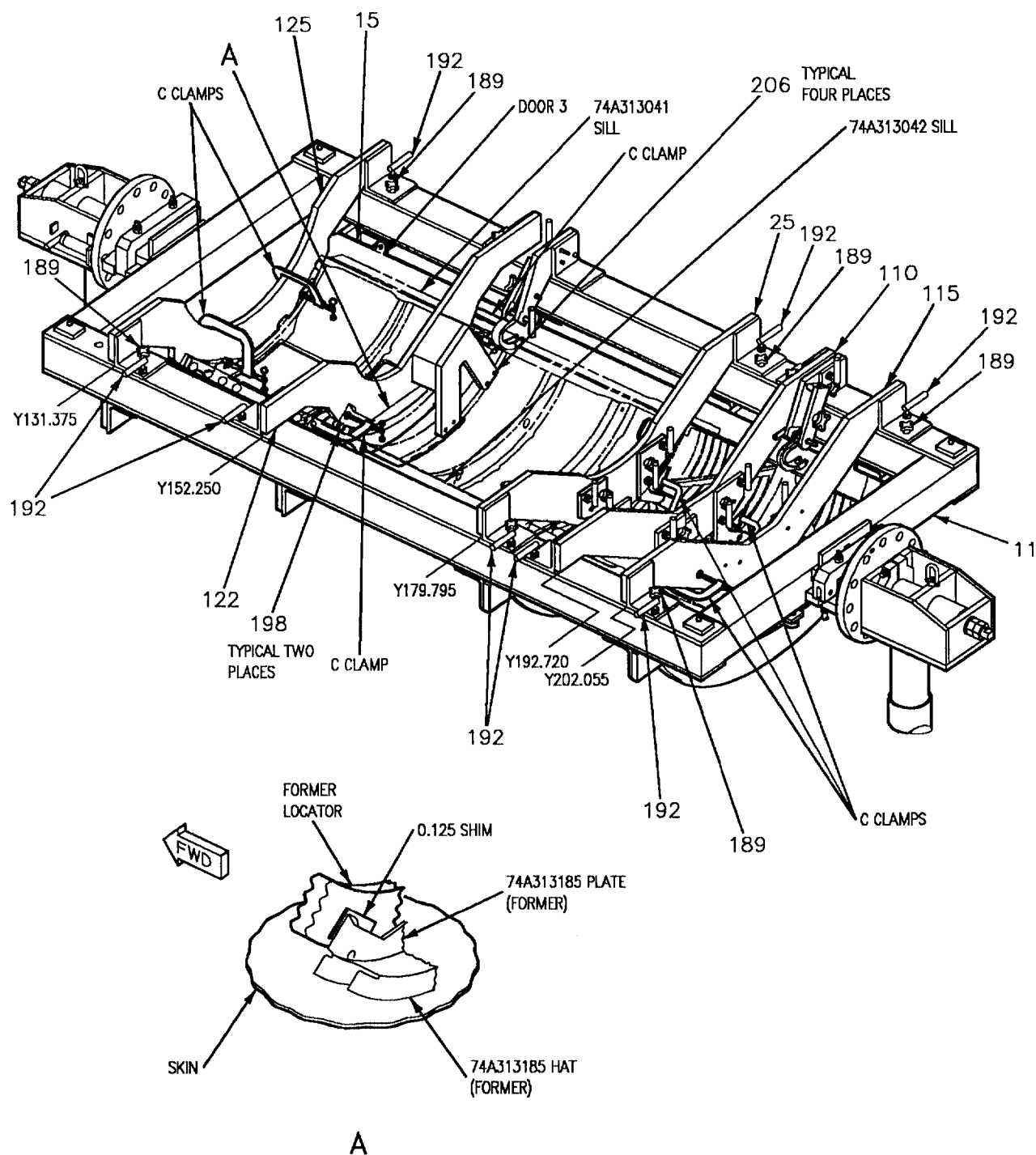


Figure 5. Inspection or Replacement - 74A313185 Former (Sheet 1)

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Supports door and checks for alignment and twist.
25	Former locator	Locates former at Y179.795.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
122	Former locator	Locates former at Y152.250.
125	Former locator	Locates former at Y131.375.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
198	L-Pin	Locates former to former locator.
206	Drill bushing	Guides 0.195 inch drill.

Figure 5. Inspection or Replacement - 74A313185 Former (Sheet 2)

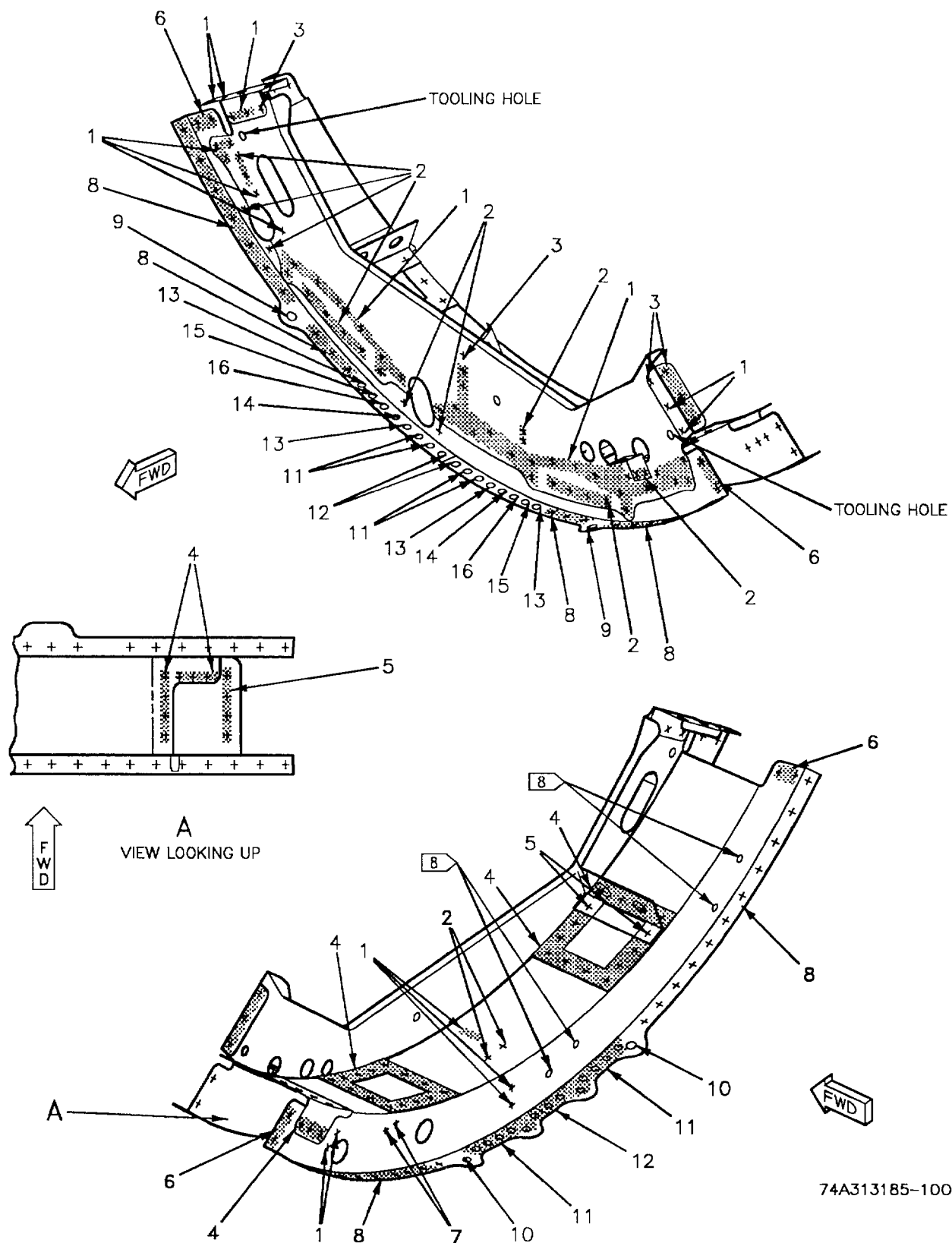
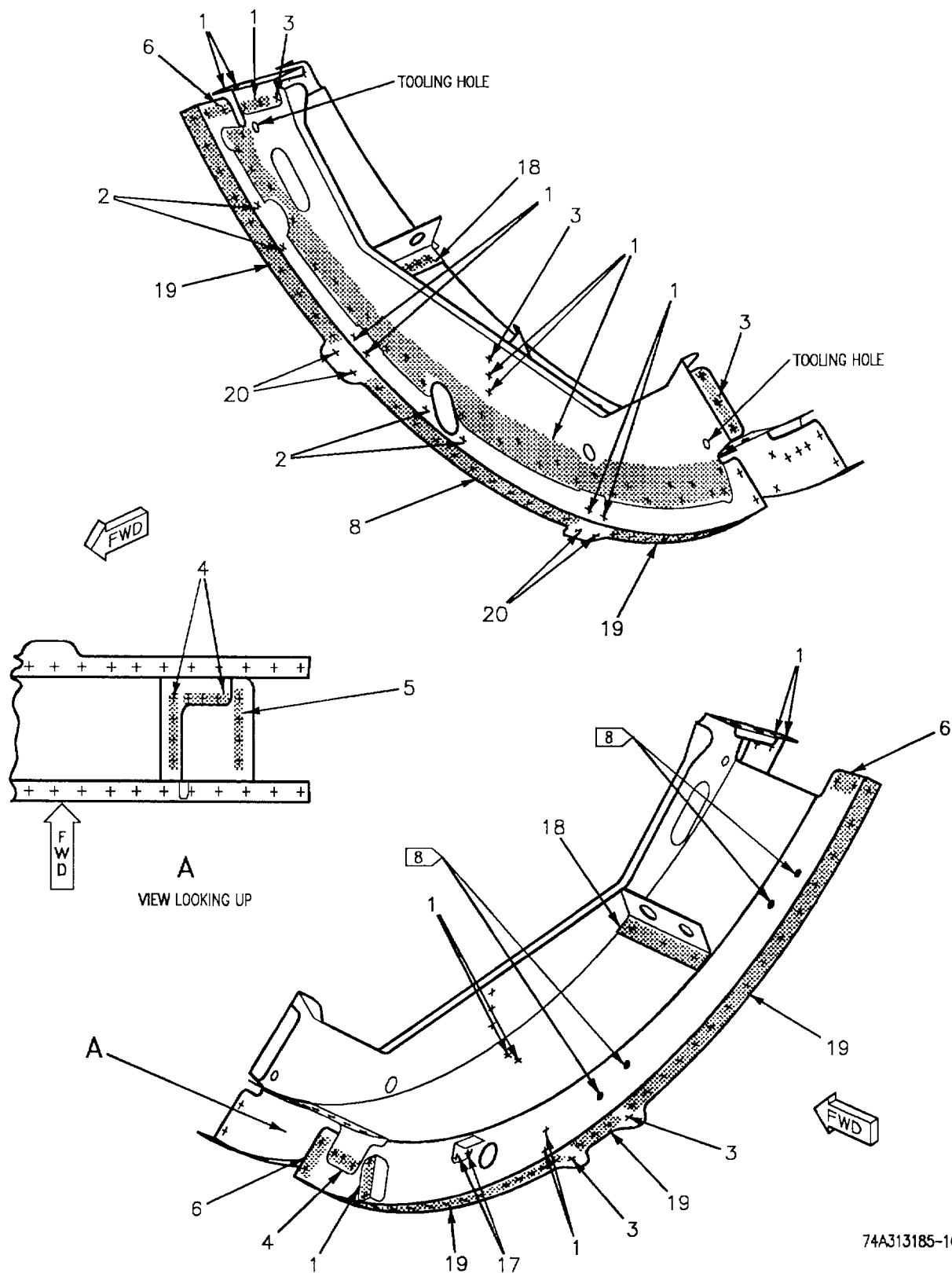


Figure 6. Former, 74A313185, Fastener Index (Sheet 1)



74A313185-1003

18AC-SRM-221-(51-2)01-CATI

Figure 6. Former, 74A313185, Fastener Index (Sheet 2)




















Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20470AD5
2			Rivet	MS20470AD4
3			Rivet	BRFS5AD5
4			Rivet	NAS1398C5-2
5			Rivet	NAS1398C5-3
6			Rivet	MS20470AD6
7			Rivet	NAS1398D4A2
8			Rivet	BRFS5T6
9			Pin Collar	NAS2706V04 NAS1080AG06
10			Pin Collar	HLT51TB-6-4 SW1000-6M
11			Pin Collar	HLT311TA5-5 SW1000-5M
12			Pin Collar	HLT311TA5-4 SW1000-5M
13			Pin Collar	HLT311TA5-6 SW1000-5M
14			Pin Collar	HLT311TA5-7 SW1000-5M
15			Pin Collar	HLT311TA5-8 SW1000-5M
16			Pin Collar	HLT311TA5-9 SW1000-5M
17			Rivet	CR3212-3
18			Rivet	CR3212-5
19			Rivet	BRFS5T5

Figure 6. Former, 74A313185, Fastener Index (Sheet 3)










Idx No.	Eft		Nomenclature	Part Number
20			Rivet	BRFS5AD6
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.161 +0.005 -0.000.</p> <p> Hole diameter is 0.128 +0.006 -0.000.</p> <p> Hole diameter is 0.160 +0.004 -0.000.</p> <p> Hole diameter is 0.191 +0.007 -0.000.</p> <p> Hole diameter is 0.129 +0.003 -0.000.</p> <p> Hole diameter is 0.185 +0.003 -0.000.</p> <p> Hole diameter is 0.1600 +0.0025 -0.0000.</p> <p> Hole diameter is 0.195 +0.007 -0.000; MS21060L3 platenut installed with MS20426AD3 rivets.</p>				

Figure 6. Former, 74A313185, Fastener Index (Sheet 4)

10. **FORMER, 74A313186, INSPECTION AND REPLACEMENT.** See figure 7.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

11. **INSPECTION.**

- Make sure door is loaded correctly and secure (WP013 01).
- Position former locator (detail 120) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
- Check alignment and twist of 74A313186 former by inserting 0.125 inch shim between former locator (detail 120) and 74A313186 former.
- Replace former if damaged or out of tolerance.

12. **REPLACEMENT.**

- Remove fasteners holding former to structure. See figure 8 for fastener location.
- Remove damaged former.
- Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

- Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.

e. Position former locators (details 25, 110, 115, 120 and 125) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

f. Position hole locator (detail 215) on former locator (detail 120) by inserting L-pin (detail 196) and secure by installing handknobs (detail 193).

g. Position new 74A313186 former next to former locator (detail 120) and locate by installing L-pin (detail 198) through hole locator (detail 215) into 74A313186 former tooling hole.

h. Insert 0.125 inch shim between formers and former locators (details 25, 110, 115, 120 and 125) and C-clamp together at as many points as necessary to securely hold door assembly.

i. Rotate fixture and remove drill blanket (detail 15).

j. Mate drill from skin to former and install temporary fasteners. See figure 8 for hole diameters.

k. Mate drill from structure to former; see figure 8 for hole diameters.

l. At hole location 153 through 164:

(1) Install drill bushing (detail 153).

(2) Drill 0.195 +0.007 -0.000 inch diameter hole 12 places; see figure 8 for hole location.

m. Loosen C-clamps and remove 74A313186 former from former locator (detail 120).

n. Apply finish system (A1-F18AC-SRM-500, WP018 00).

o. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

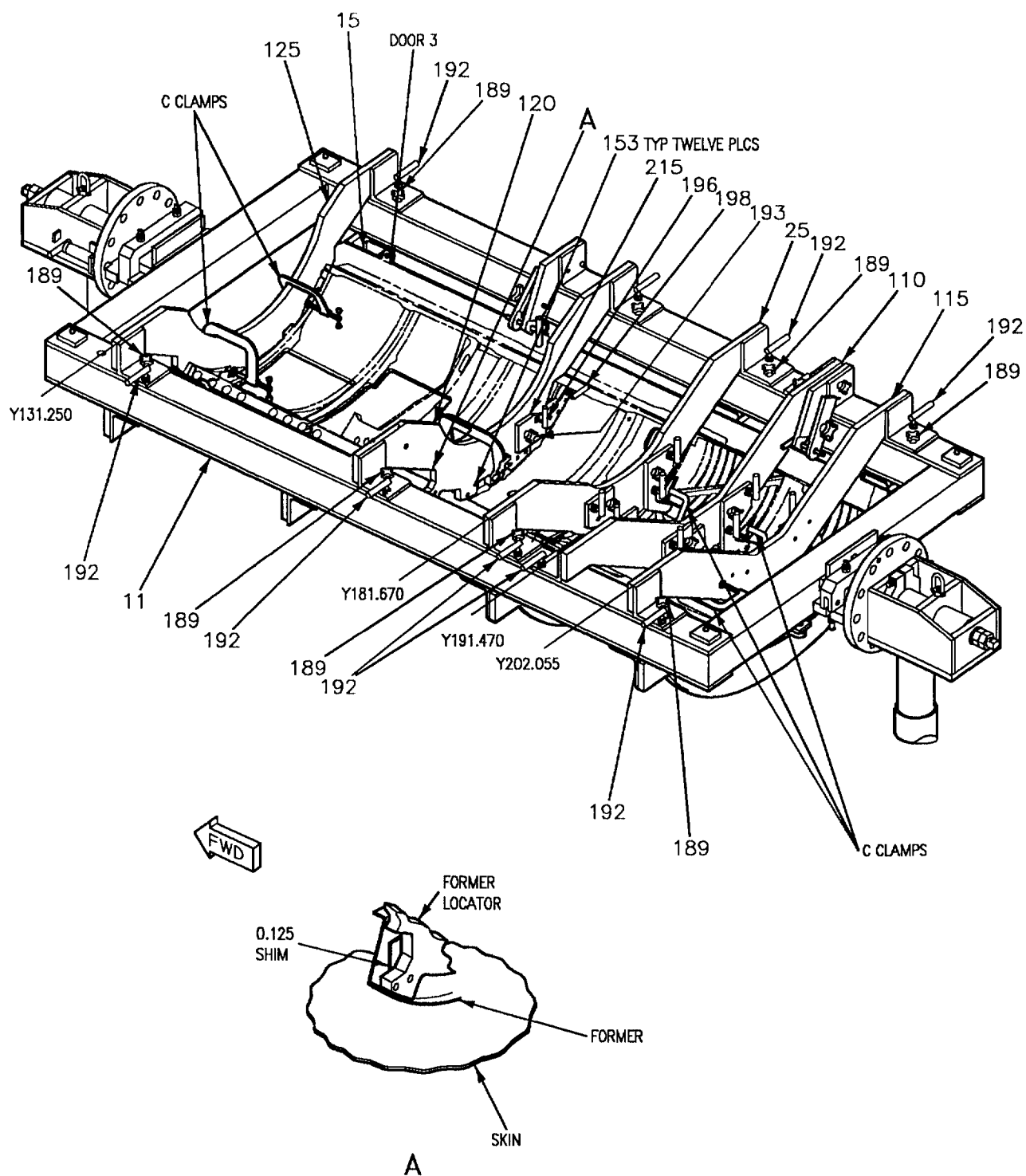
3

p. Apply sealing compound per substeps below:

(1) Fay seal area between skin and former (A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 8 and (A1-F18AC-SRM-200, WP011 00).

q. Apply finish system (A1-F18AC-SRM-500, WP018 00).



18AC-SRM-221-(52-1)01-CAT1

Figure 7. Inspection or Replacement - 74A313186 Former (Sheet 1)

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Supports door and checks for alignment and twist.
25	Former locator	Locates former at Y179.795.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
120	Former locator	Locates former at Y163.000.
125	Former locator	Locates former at Y131.375.
153	Drill bushing	Guides 0.195 inch drill.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
193	Handknob	Secures detail 215 to detail 120.
196	L-Pin	Locates detail 215 to detail 120.
198	L-Pin	Locates former to former locator.
215	Hole locator	Locates tooling hole in 74A313186 former.

Figure 7. Inspection or Replacement - 74A313186 Former (Sheet 2)

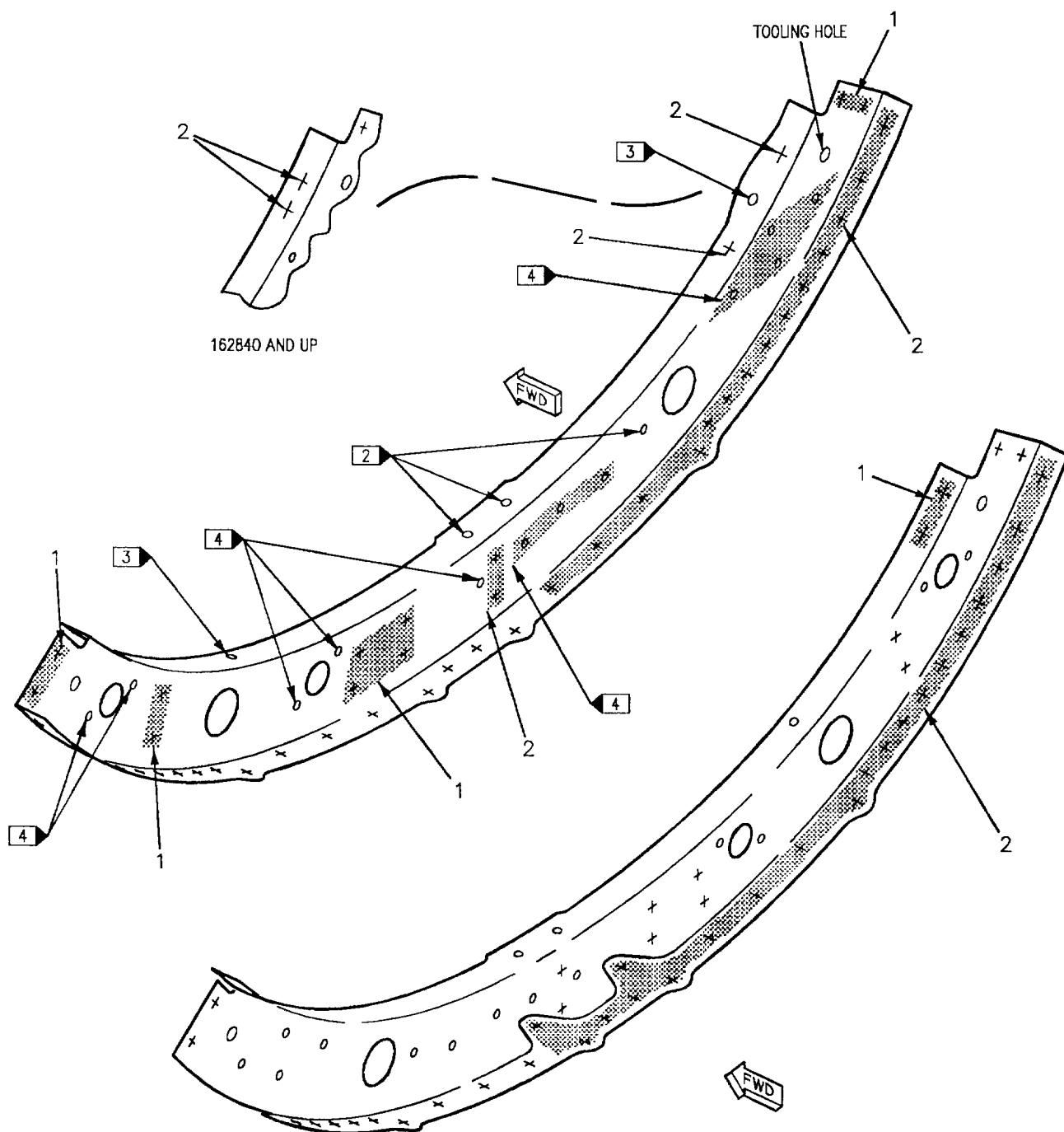


Figure 8. Former, 74A313186, Fastener Index (Sheet 1)







Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20470AD5
2			Rivet	BRFS5AD5
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.161 +0.005 -0.000.</p> <p> Hole diameter is 0.195 +0.007 -0.000; MS21059L3 platenut installed with MS20426AD3 rivets.</p> <p> Hole diameter is 0.195 +0.007 -0.000; MS21060L3 platenut installed with MS20426AD3 rivets.</p> <p> Hole diameter is 0.195 +0.007 -0.000.</p>				

Figure 8. Former, 74A313186, Fastener Index (Sheet 2)

13. FORMER, 74A313187, INSPECTION AND REPLACEMENT. See figure 9.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

14. INSPECTION.

- Make sure door is loaded correctly and secure (WP013 01).
- Position former locator (detail 129) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
- Check alignment and twist of 74A313187 former by inserting 0.125 inch shim between former locator (detail 129) and 74A313187 former.
- Replace former if damaged or out of tolerance.

15. REPLACEMENT.

- Remove fasteners holding former to structure. See figure 10 for fastener location.
- Remove damaged former.
- Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

- Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.

- Position former locators (details 25, 110, 115, 125 and 129) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

- Position new 74A313187 former next to former locator (detail 129) and locate by installing L-pin (detail 198) through former locator (detail 129) into 74A313187 former tooling hole, detail B.

- Insert 0.125 inch shim between formers and former locators (details 25, 110, 115, 125 and 129) and C-clamp together at as many points as necessary to securely hold door assembly, detail A.

- Position hole locators (details 171 and 172) on former locator (detail 129) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193), detail B.

- Rotate fixture and remove drill blanket (detail 15).

- Mate drill from skin to former and install temporary fasteners. See figure 10 for hole diameters.

- Mate drill from structure to former; see figure 10 for hole diameters.

- At hole location 165 through 172:

- Install drill bushing (details 153 and 173), detail B.

- Drill 0.195 +0.007 -0.000 inch diameter hole eight places; see figure 10 for hole location.

- Loosen C-clamps and remove 74A313187 former from former locator (detail 129).

- Apply finish system (A1-F18AC-SRM-500, WP018 00).

- Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

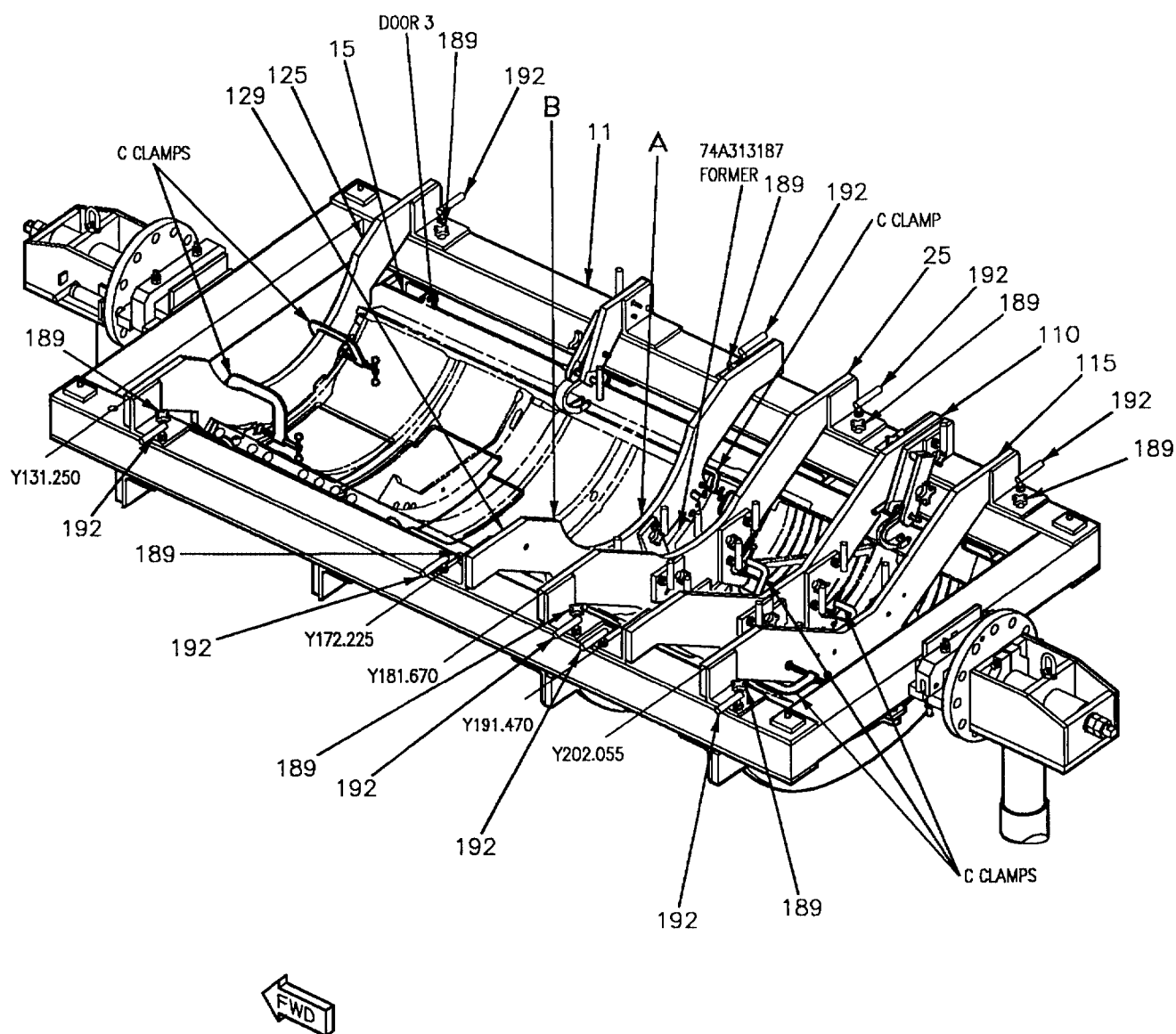
3

- Apply sealing compound per substeps below:

- Fay seal area between skin and former (A1-F18AC-SRM-200, WP011 00).

- Wet install fasteners, see figure 10 and (A1-F18AC-SRM-200, WP011 00).

- Apply finish system (A1-F18AC-SRM-500, WP018 00).



18AC-SRM-221-(54-1)01-CAT1

Figure 9. Inspection or Replacement - 74A313187 Former (Sheet 1)

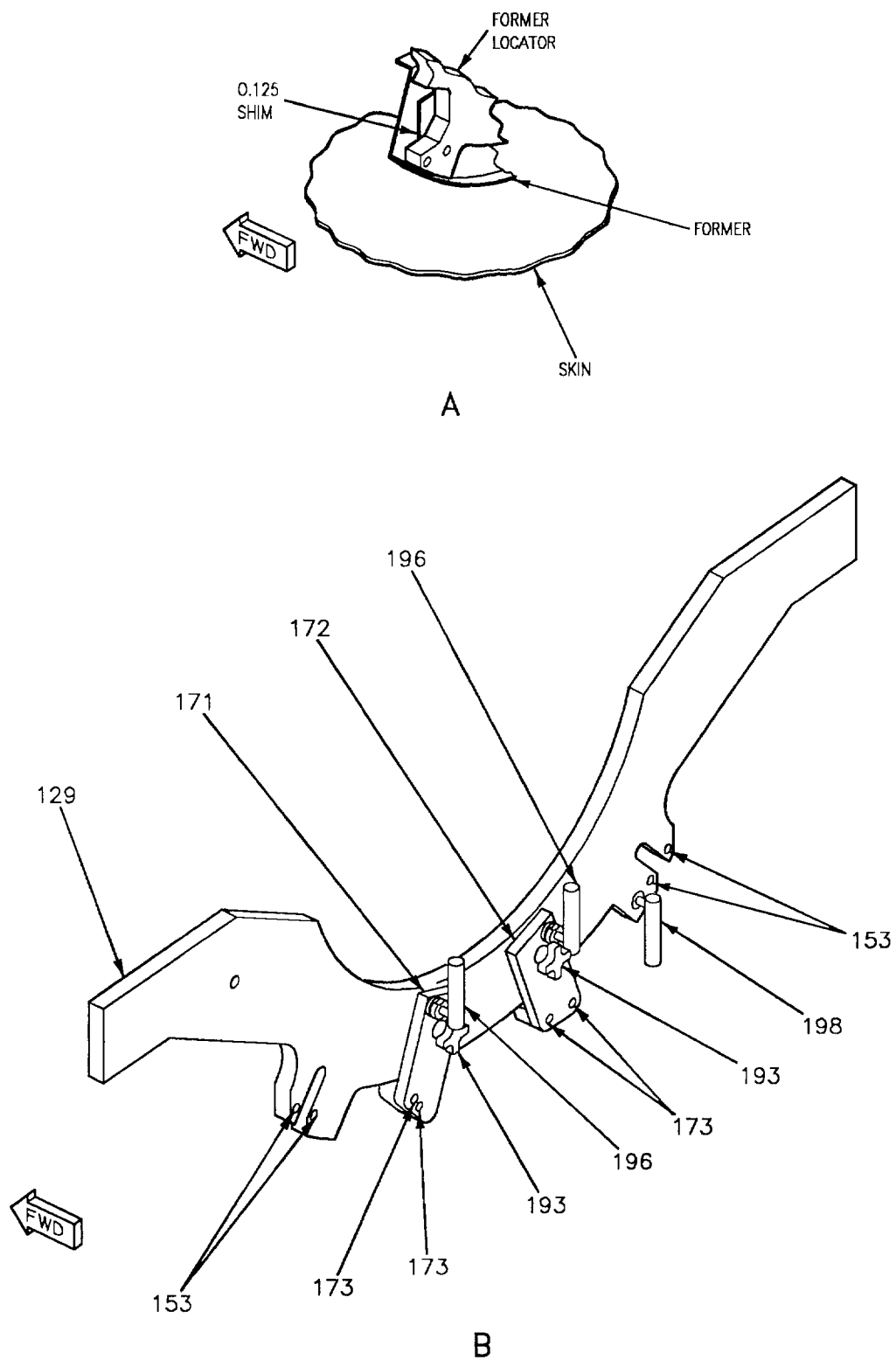


Figure 9. Inspection or Replacement - 74A313187 Former (Sheet 2)

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Supports door and checks for alignment and twist.
25	Former locator	Locates former at Y179.795.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
125	Former locator	Locates former at Y131.375.
129	Former locator	Locates former at Y172.100.
153	Drill bushing	Guides 0.195 diameter drill.
171	Hole locator	Locates hole number 167 and 168 in former.
172	Hole locator	Locates hole number 169 and 170 in former.
173	Drill bushing	Guides 0.195 diameter drill.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
193	Handknob	Secures details 171 and 172 to detail 129.
196	L-Pin	Locates details 171 and 172 to detail 129.
198	L-Pin	Locates former to former locator.

Figure 9. Inspection or Replacement - 74A313187 Former (Sheet 3)

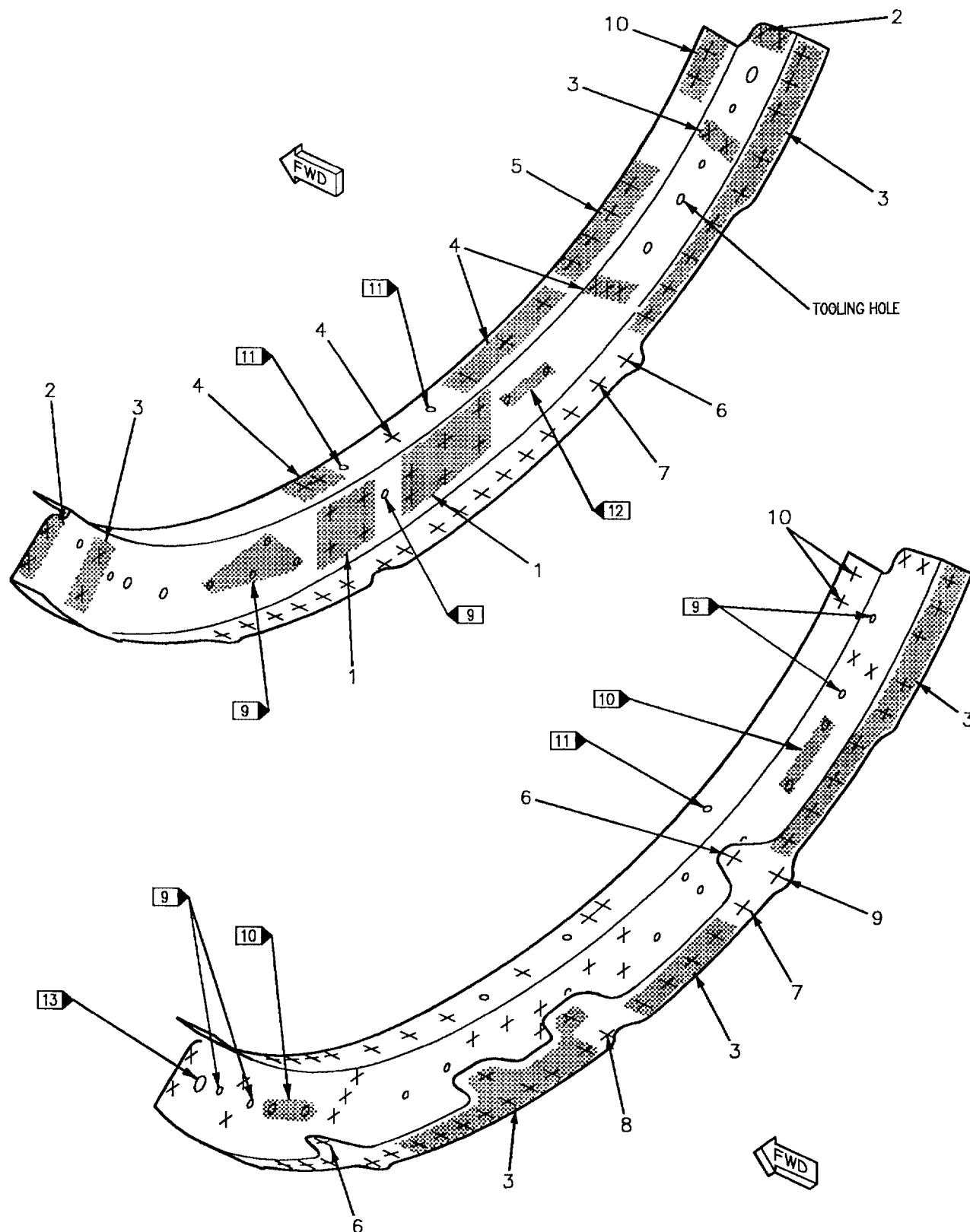


Figure 10. Former, 74A313187, Fastener Index (Sheet 1)

































Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20470AD5
2			Rivet	MS20470AD6
3			Rivet	BRFS5AD5
4			Rivet	MS20470AD4
5			Rivet	MS20470AD3
6			Rivet	BRFS5T8
7	 	 	Rivet Pin Collar	BRFS5AD5 SLS100CT-EU5-4 NAS1080UG05
8			Rivet	MS20426AD3
9	 	 	Pin Collar Rivet	SLS100CT-EU4-4 NAS1080UG04 BRFS5T8
10	 	 	Rivet Rivet	BRFS5AD5 MS20470AD5
<p style="text-align: center;">LEGEND</p> <p> Applicable on 74A313040 door assembly.</p> <p> Applicable on 74A313211 door assembly.</p> <p> Hole diameter is 0.161 +0.005 -0.000.</p> <p> Hole diameter is 0.191 +0.007 -0.000.</p> <p> Hole diameter is 0.128 +0.006 -0.000.</p> <p> Hole diameter is 0.098 +0.005 -0.000.</p> <p> Hole diameter is 0.1600 +0.0025 -0.0000.</p> <p> Hole diameter is 0.1245 +0.0015 -0.0007.</p> <p> Hole diameter is 0.195 +0.007 -0.000.</p> <p> Hole diameter is 0.255 +0.007 -0.000.</p> <p> Hole diameter is 0.191 +0.006 -0.000; MS21060L3 platenut installed with MS20426AD3 rivet.</p> <p> Hole diameter is 0.195 +0.007 -0.000; MS21060L3 platenut installed with NAS1097AD3 rivet on 74A313211 door assembly.</p> <p> Hole diameter is 0.375.</p>				

Figure 10. Former, 74A313187, Fastener Index (Sheet 2)

16. FORMER, 74A313188, INSPECTION AND REPLACEMENT. See figure 11.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

17. INSPECTION.

- Make sure door is loaded correctly and secure (WP013 01).
- Position former locators (detail 24 and 25) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
- Check alignment and twist of 74A313188 former by inserting 0.125 inch shim between locator bushings (detail 102 and 103) and 74A313188 former, six places, details A and B.
- Replace former if damaged or out of tolerance.

18. REPLACEMENT.

- Remove fasteners holding former to structure. See figure 12 for fastener location.
- Remove damaged former.
- Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

- Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.
- Position former locators (details 24, 25, 110, 115 and 125) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
- Locate 74A313188 former by inserting L-pin (detail 198) through locator bushings (detail 102) into 74A313188 former tooling holes, typical four places. See detail A and B.
- Insert 0.125 inch shim between locator bushing (detail 102 and 103) and 74A313188 former and C-clamp together, typical six places. See detail A and B.
- Insert 0.125 inch shim between formers and former locators (detail 110, 115 and 125) and C-clamp together at as many points as necessary to securely hold door assembly.
- Rotate fixture and remove drill blanket (detail 15).
- Mate drill from skin to former and install temporary fasteners. See figure 12 for hole diameters.
- Mate drill from structure to former; see figure 12 for hole diameters.
- At hole location 177, 178, 179 and 180, see detail C and substeps below:
 - Remove former locator (detail 25).
 - Position former locator (detail 106) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
 - Position hole locators (detail 108) on former locator (detail 106) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193).
 - Install drill bushing (detail 153) in hole locator (detail 108).
 - Drill 0.195 +0.007 -0.000 diameter hole four places; see figure 12 for hole location.

m. At hole location 57 through 61 and 92 through 95, see detail D and substeps below:

(1) Remove former locator (detail 106).

(2) Position former locator (detail 25) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

(3) Position drill blanket (detail 19) with pads (detail 162 and 166) resting on 74A313210 louvers or 74A313204 louver frames.

(4) Turn adjustment screws (detail 167) until drill blanket (detail 19) is resting on 74A313188 and 74A313189 formers.

(5) Locate drill blanket (detail 19) using existing holes in 74A313210 louvers or 74A313204 louver frame and 74A313189 former.

(6) C-clamp drill blanket (detail 19) to door assembly.

(7) Insert traveler bushing (detail 205) in drill bushing (detail 19C).

(8) Drill 0.195 +0.007 -0.000 diameter hole nine places; see figure 12 for hole location.

n. Loosen C-clamps and remove drill blanket (detail 19).

o. Loosen C-clamps and remove 74313188 former from former locators (detail 24 and 25).

p. Apply finish system (A1-F18AC-SRM-500, WP018 00).

q. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

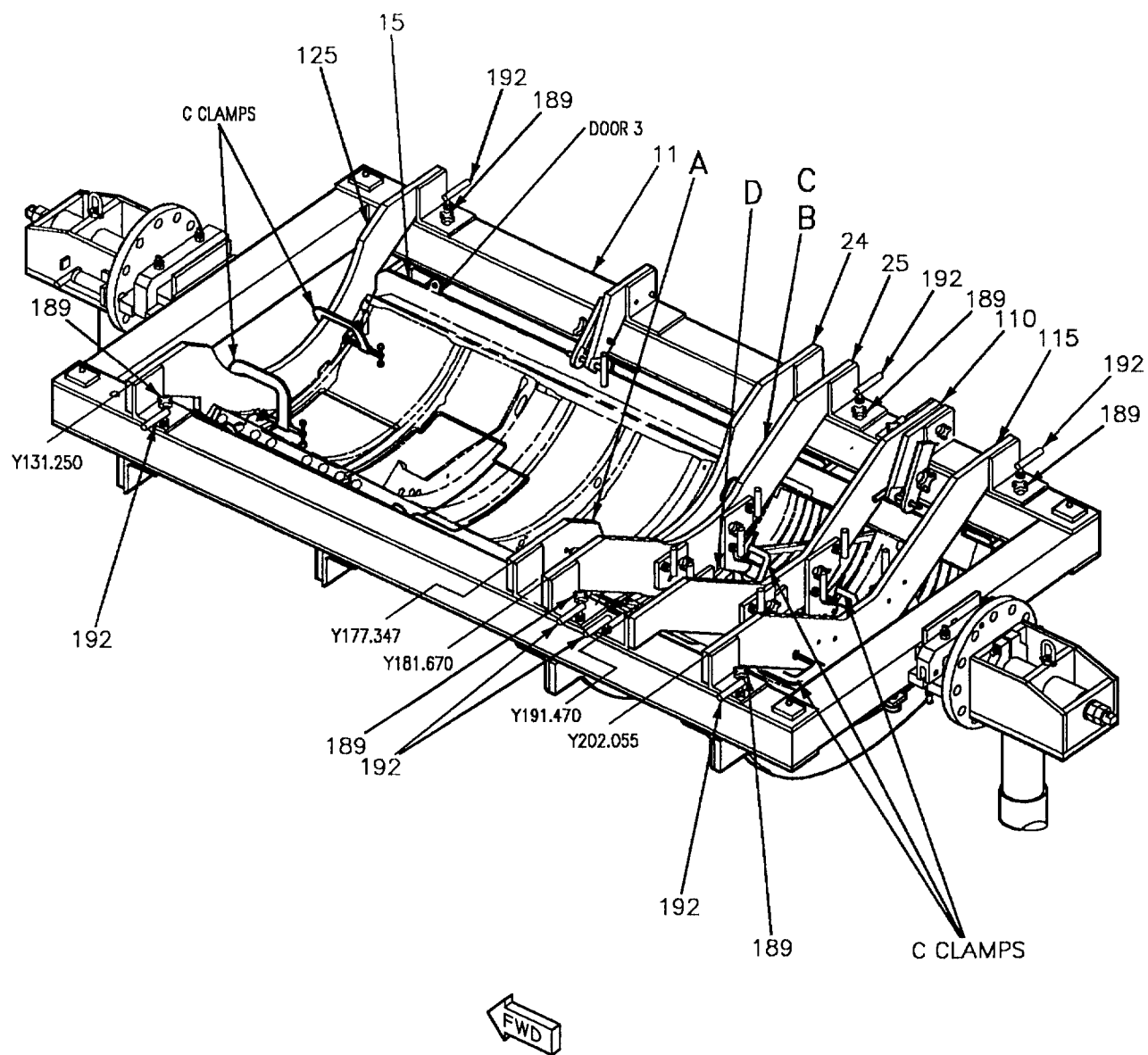
3

r. Apply sealing compound per substeps below:

(1) Fay seal area between skin and former (A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 12 and (A1-F18AC-SRM-200, WP011 00).

s. Apply finish system (A1-F18AC-SRM-500, WP018 00).



18AC-SRM-221-(56-1)01-CATI

Figure 11. Inspection or Replacement - 74A313188 Former (Sheet 1)

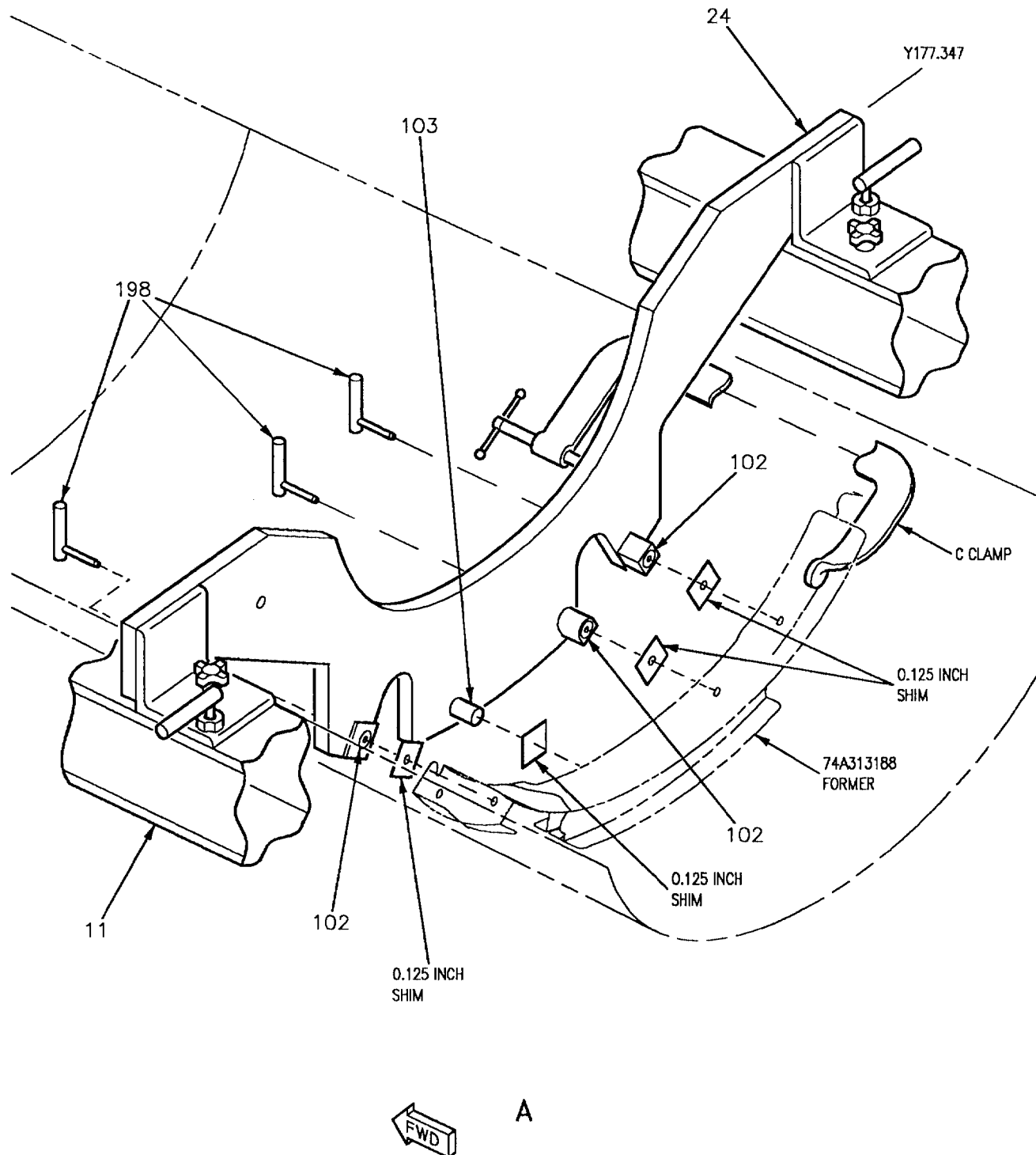


Figure 11. Inspection or Replacement - 74A313188 Former (Sheet 2)

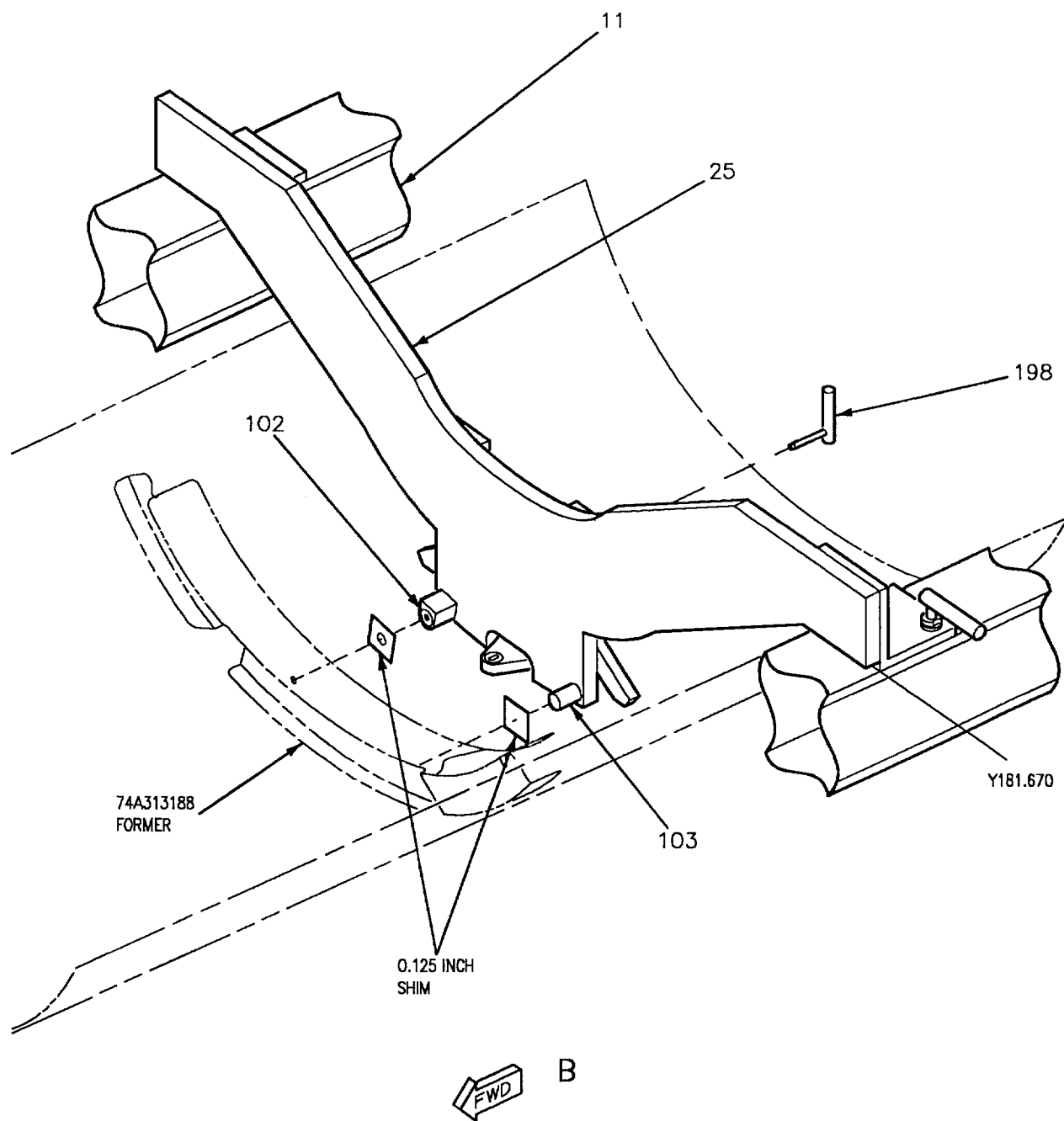


Figure 11. Inspection or Replacement - 74A313188 Former (Sheet 3)

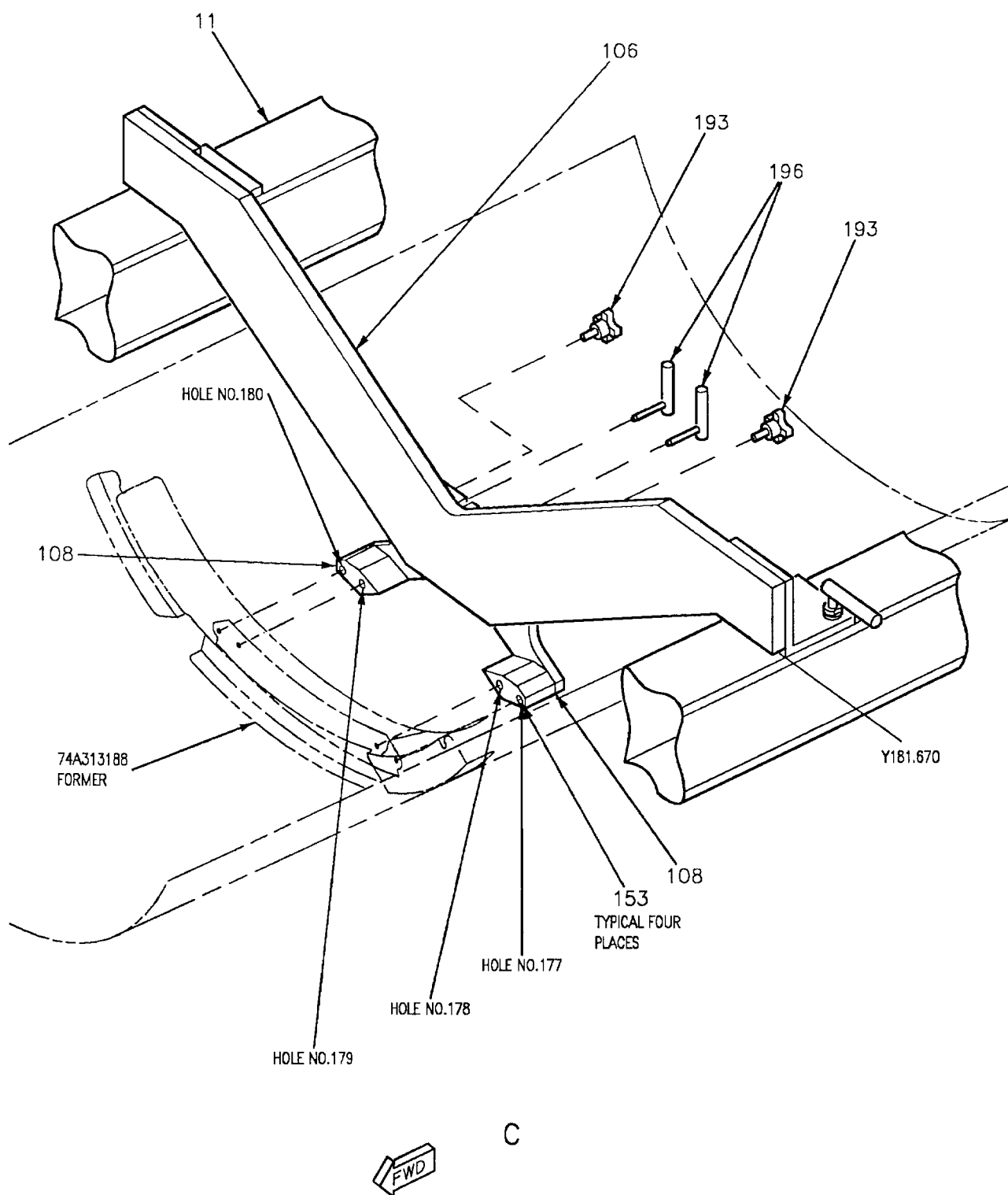


Figure 11. Inspection or Replacement - 74A313188 Former (Sheet 4)

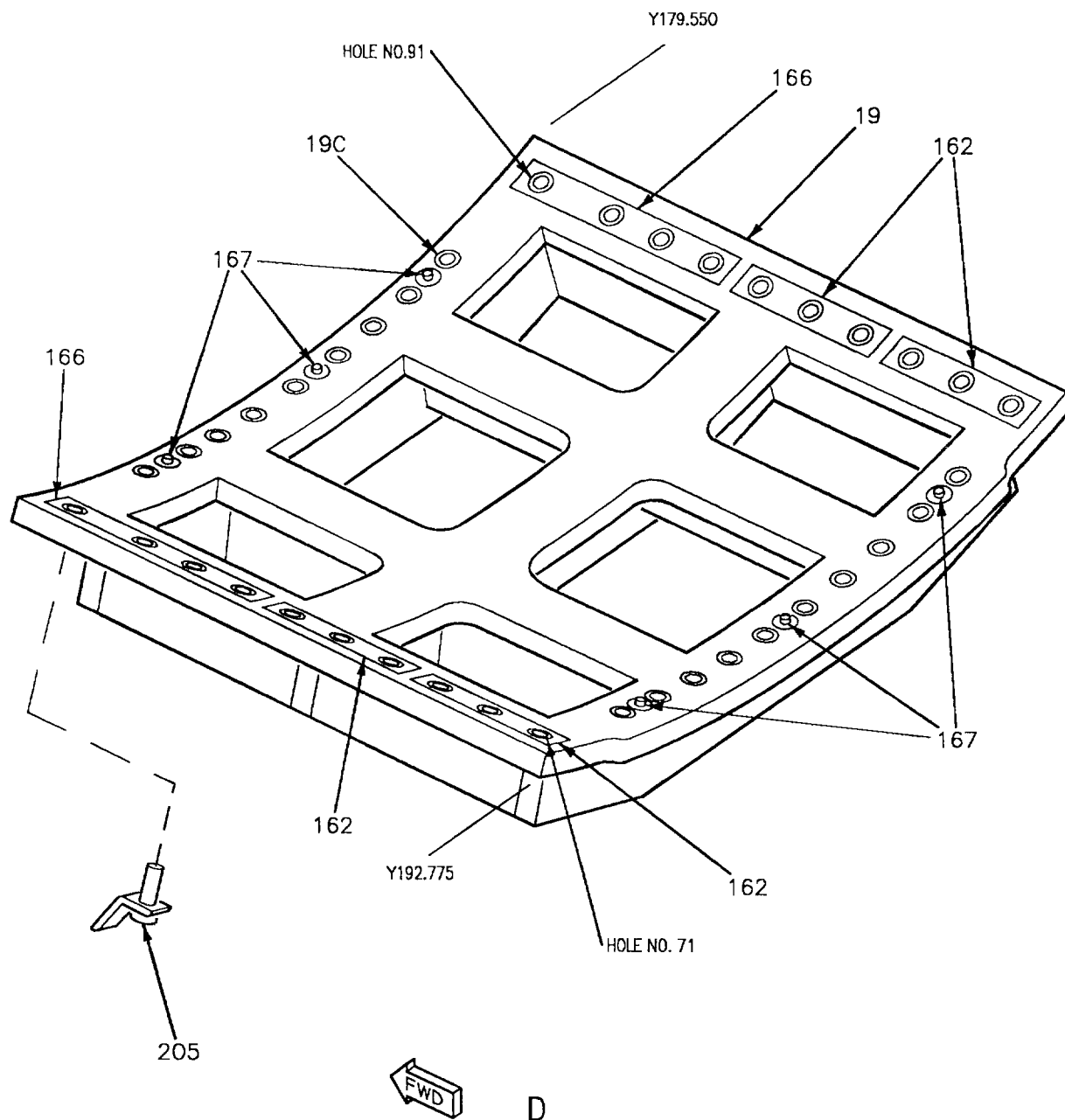


Figure 11. Inspection or Replacement - 74A313188 Former (Sheet 5)

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Supports door and checks for alignment and twist.
19	Drill blanket	Locates holes in 74A313188 former.
19C	Drill bushing	Guides traveler bushing (detail 205).
24	Former locator	Locates former at Y177.500.
25	Former locator	Locates former at Y179.600.
102	Locator bushing	Locates and supports 74A313188 former.
103	Locator bushing	Locates and supports 74A313188 former.
106	Former locator	Locates hole pattern in 74A313188 former.
108	Hole locator	Locates hole number 177, 178, 179 and 180 in former.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
125	Former locator	Locates former at Y131.375.
153	Drill bushing	Guides 0.195 diameter drill.
162	Pad	Provides resting surface for drill blanket.
166	Pad	Provides resting surface for drill blanket.
167	Adjustment screw	Adjusts height of drill blanket on formers.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
193	Handknobs	Secures hole locator (detail 108) to former locator.
196	L-Pin	Locates hole locator (detail 108) to former locator.
198	L-Pin	Locates former to former locator.
205	Traveler bushing	Guides 0.195 diameter drill.

Figure 11. Inspection or Replacement - 74A313188 Former (Sheet 6)

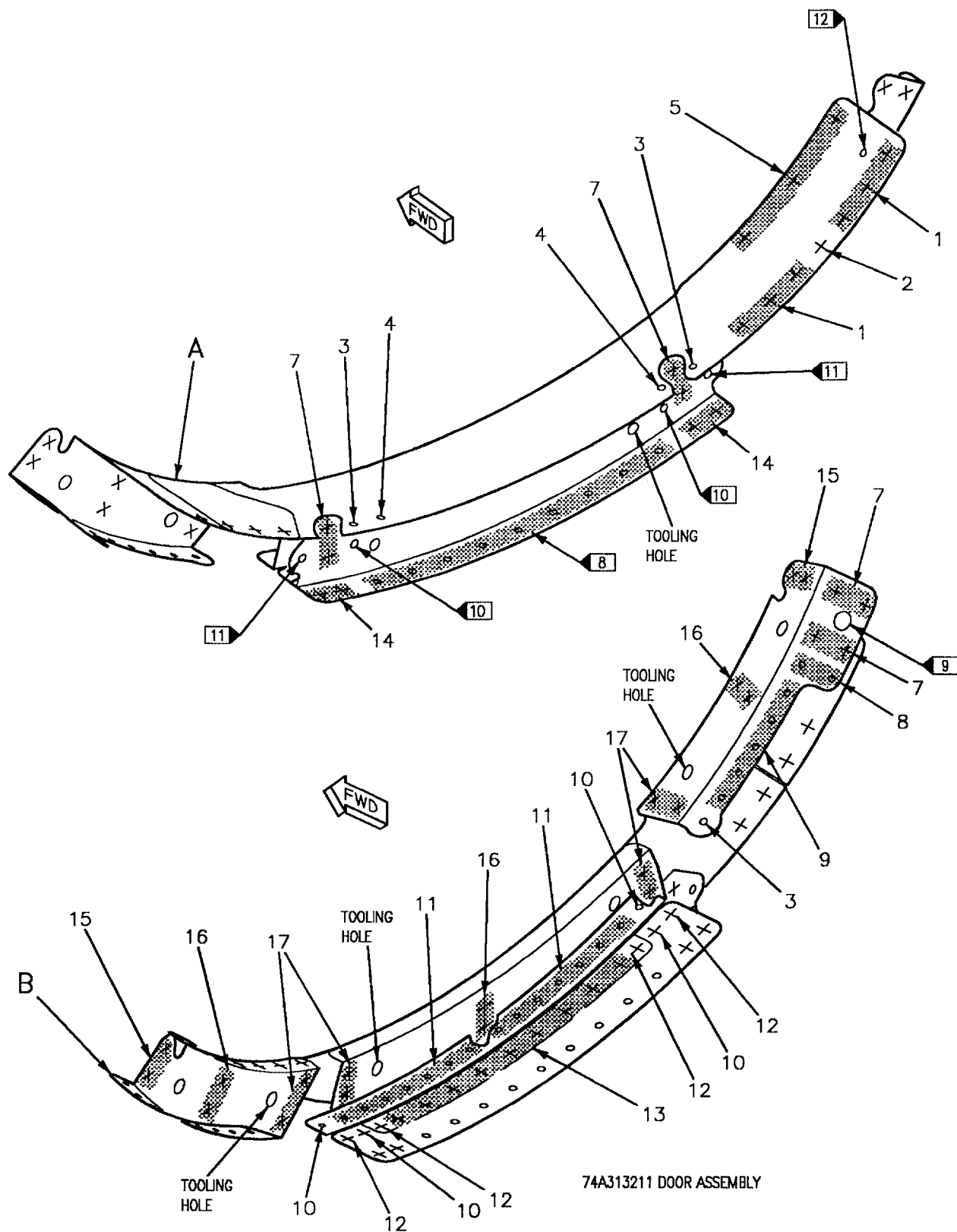
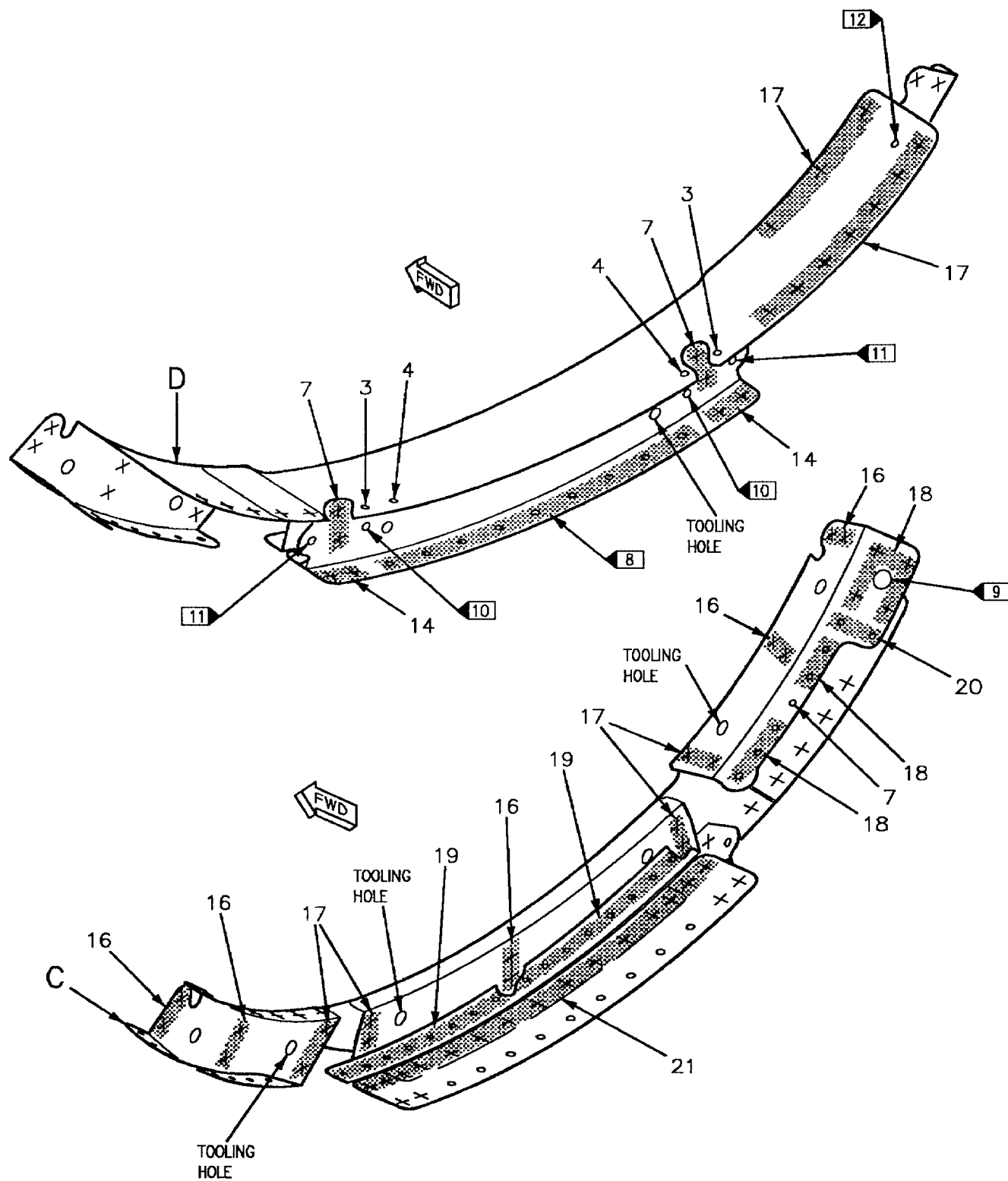


Figure 12. Former, 74A313188, Fastener Index (Sheet 1)



74A313040 DOOR ASSEMBLY

Figure 12. Former, 74A313188, Fastener Index (Sheet 2)

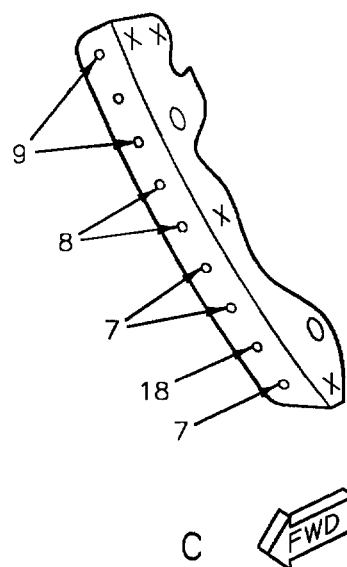
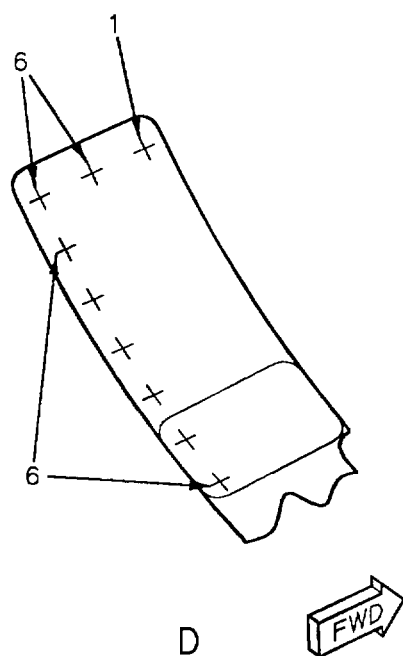
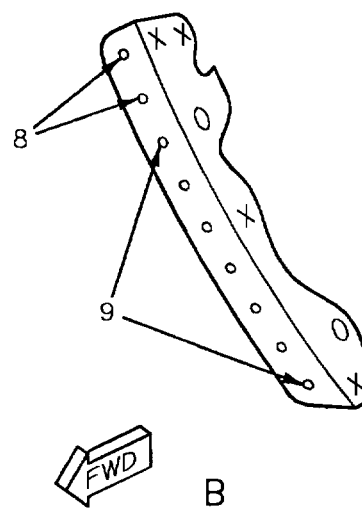
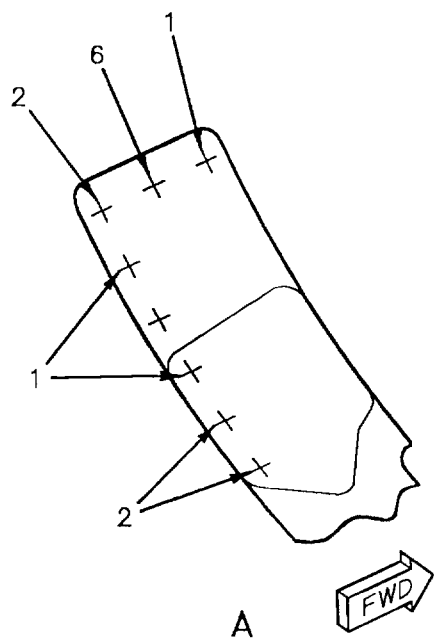


Figure 12. Former, 74A313188, Fastener Index (Sheet 3)





















Idx No.	Eft		Nomenclature	Part Number
1			Rivet	NAS1398C6A4
2			Rivet	NAS1398C6A5
3			Pin Collar	NAS2706V05 NAS1080AG06
4			Pin Collar	NAS2606V05 NAS1080AG06
5			Rivet	CSR903B-6-8
6			Rivet	NAS1398C6A3
7			Rivet	BRFS6AD
8			Pin Collar	NAS2705V06 NAS108AG05
9			Pin Collar	NAS2705V05 NAS1080AG05
10			Pin Collar	SLS100CT-EU5-4 NAS1080AG05
11			Pin Collar	NAS2705V04 NAS1080AG05
12			Pin Collar	NAS2705V03 NAS1080AG05
13			Rivet	BRFS5T3
14			Rivet	BRFS5AD
15			Rivet	CSR903B-5-6
16			Rivet	MS20470AD5
17			Rivet	MS20470AD6
18			Rivet	BRFS5T8
19			Rivet	BRFS5T7
20			Rivet	BRFS5T10
21			Rivet	BRFS5T6

Figure 12. Former, 74A313188, Fastener Index (Sheet 4)

Idx No.	Eft		Nomenclature	Part Number
LEGEND				
1			Hole diameter is 0.192 +0.004 -0.000.	
2			Hole diameter is 0.1850 +0.0030 -0.0000.	
3			Hole diameter is 0.191 +0.007 -0.000.	
4			Hole diameter is 0.1635 +0.0025 -0.0000.	
5			Hole diameter is 0.1600 +0.0025 -0.0000.	
6			Hole diameter is 0.161 +0.005 -0.000.	
7			Hole diameter is 0.159 +0.007 -0.000.	
8			Hole diameter is 0.195 +0.007 -0.000.	
9			Hole diameter is 0.469 +0.007 -0.000.	
10			Hole diameter is 0.195 +0.007 -0.000; MS21070L3 platenut installed with MS20426AD3 rivets.	
11			Hole diameter is 0.195 +0.007 -0.000; F50403-3-1 platenut installed with MS20426AD3 rivets.	
12			Hole diameter is 0.191 +0.006 -0.000; NAS673V2H bolt, MS21060L3 platenut installed with MS20426AD3 rivets.	

Figure 12. Former, 74A313188, Fastener Index (Sheet 5)

19. **SILL, 74A313041 AND 74A313042, INSPECTION AND REPLACEMENT.** See figure 13.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

20. INSPECTION.

- Make sure door is loaded correctly and secure (WP013 01).
- Position former locator (detail 126) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
- Position sill locators (detail 200) on former locator (detail 126) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193).
- Check alignment and twist of 74A313041 and 74A313042 sills by inserting 0.125 inch shim between sill locators (detail 200) and 74A313041 and 74A313042 sills.
- Replace sills if damaged or out of tolerance.

21. REPLACEMENT.

- Remove fasteners holding 74A313041 or 74A313042 sill to structure. See figure 14 for fastener location.
- Remove damaged sill.

- Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

- Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.
- Position former locators (details 25, 110, 115, 125 and 126) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
- Position sill locators (detail 200) on former locator (detail 126) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193).
- Locate sills in the Y plane location:
 - 74A313041 sill EOP is 0.15 aft of Y131.375.
 - 74A313042 - 2009 sill EOP is flush with Y131.375.
 - 74A313042 - 2011 sill EOP is 0.15 aft of Y131.375.
- Locate sills in the Z plane location by setting sill net to inside mold line of 74A313055 skin.
- Locate sills in the X plane location by inserting 0.125 inch shim between sill locators (detail 200) and 74A313041 or 74A313042 sills.
- C-clamp sills to sill locators (detail 200).
- Insert 0.125 inch shim between formers and former locators (details 25, 110, 115, 125 and 126) and C-clamp together at as many points as necessary to securely hold door assembly.
- Rotate fixture and remove drill blanket (detail 15).
- Mate drill from skin to sill and install temporary fasteners. See figure 14 for hole diameters.
- Mate drill from structure to sill; see figure 14 for hole diameters.
- Loosen C-clamps and remove 74A313041 or 74A313042 sills from sill locators (detail 200).

p. Apply finish system (A1-F18AC-SRM-500, WP018 00).

q. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

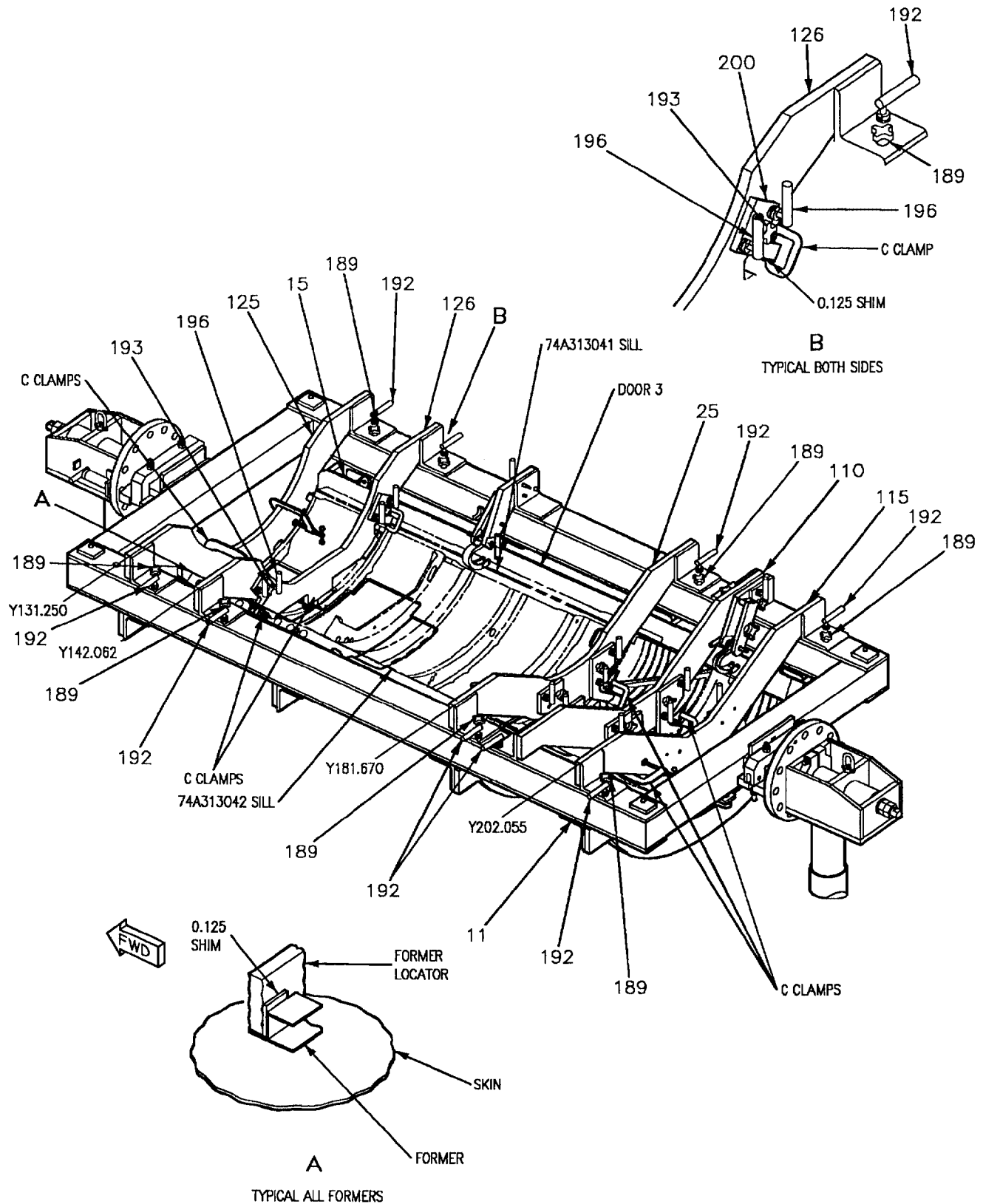
3

r. Apply sealing compound per substeps below:

(1) Fay seal area between skin and sill
(A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 14 and
(A1-F18AC-SRM-200, WP011 00).

s. Apply finish system (A1-F18AC-SRM-500, WP018 00).



18AC-SRM-221-(58-1)01-CATI

Figure 13. Inspection or Replacement - 74A313041 or 74A313042 Sills (Sheet 1)

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Supports door and checks for alignment and twist.
25	Former locator	Locates former at Y179.795.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
125	Former locator	Locates former at Y131.375.
126	Former locator	Locates former at Y142.250.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
193	Handknob	Secures detail 200 to detail 126.
196	L-Pin	Locates detail 200 to detail 126.
200	Sill locator	Locates 74A313041 or 74A313042 sills.

Figure 13. Inspection or Replacement - 74A313041 or 74A313042 Sills (Sheet 2)

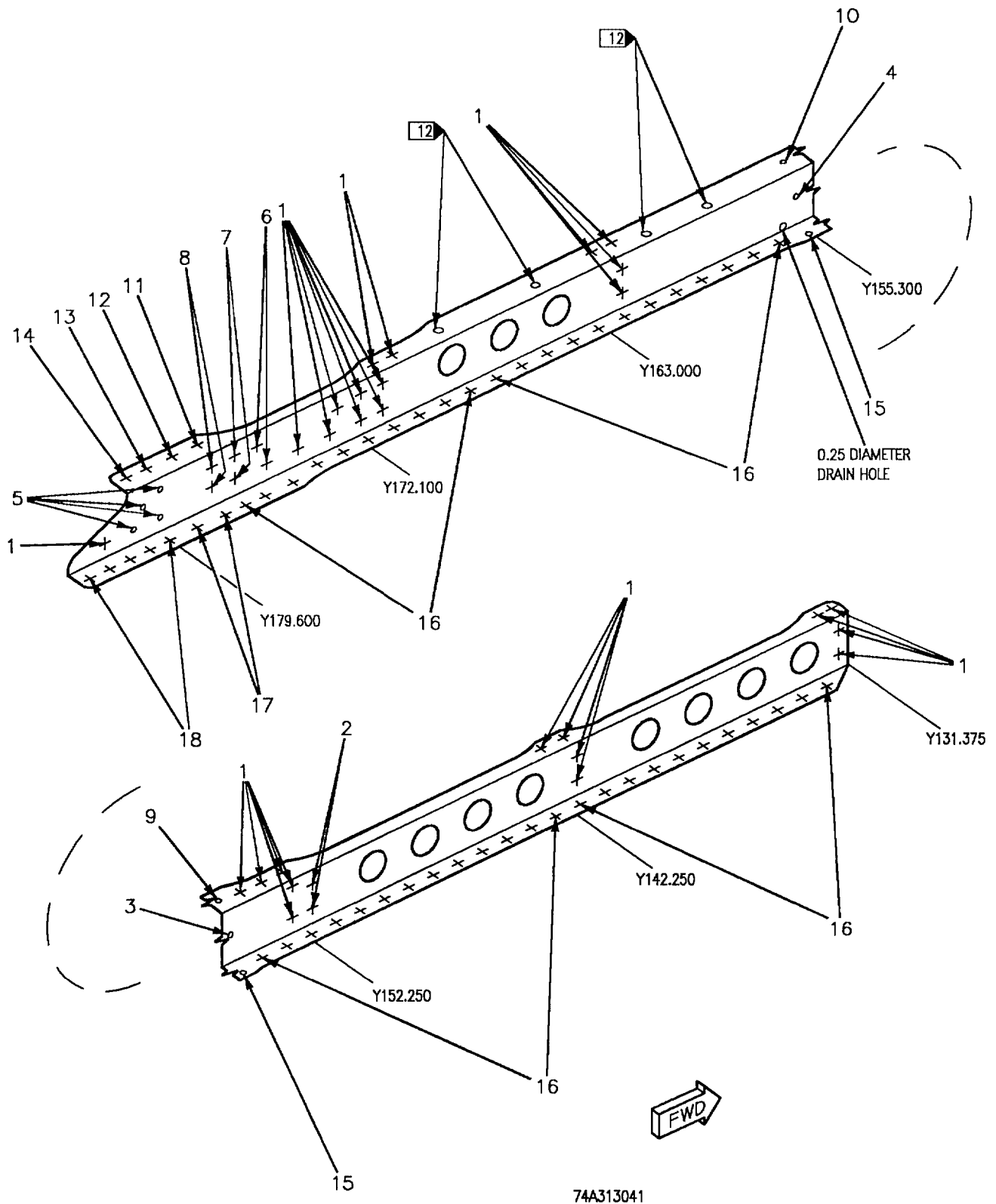


Figure 14. Sill, 74A313041 and 74A313042, Fastener Index (Sheet 1)

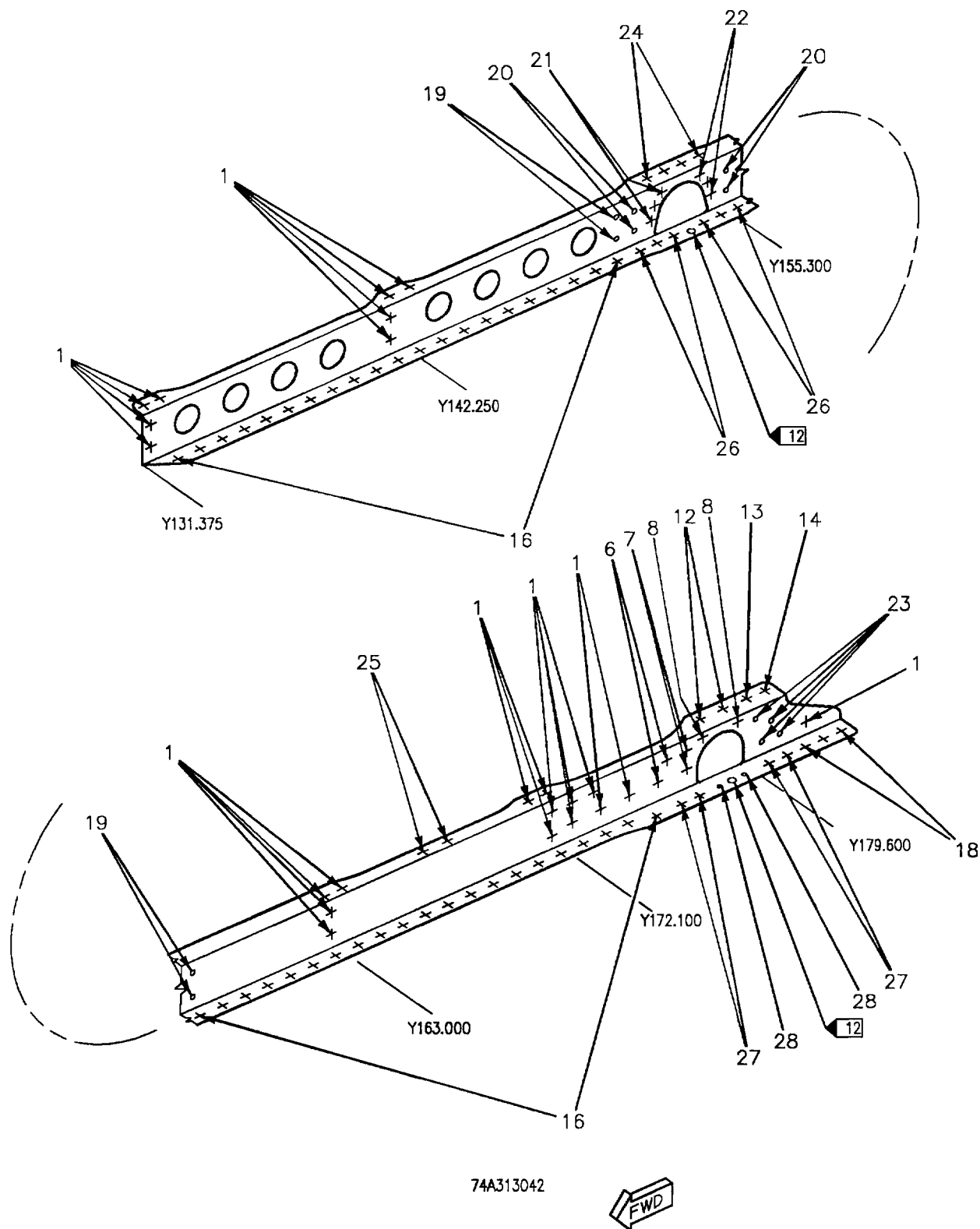


Figure 14. Sill, 74A313041 and 74A313042, Fastener Index (Sheet 2)




































Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20470AD5
2			Rivet	MS20470AD6
3		  	Bolt  Washer Platenut	NAS673V5 AN960JD10L F49249E3-2
4		   	Bolt Washer Washer Nut	NAS673V5 AN960JD10L AN960JD10 NAS1291C3M
5		 	Pin Collar	VLB237-6-3 NAS1080AG06
6			Rivet	CSR903B-5-7
7		 	Pin Collar	NAS2605V05 NAS1080AG05
8			Rivet	CSR903B-5-6
9		  	Bolt Washer Platenut	NAS673V5 AN960JD10 F50403-3-1
10		  	Bolt Washer Nut	NAS673V5 AN960JD10 NAS1291C3M
11			Rivet	CSR903B-6-7
12			Rivet	NAS1398C6A3
13			Rivet	NAS1398C6A4
14		  	Bolt  Washer Platenut	NAS673V2H AN960JD10L MS21060L3
15		  	Bolt Washer Nut	NAS663V5HT AN960JD10 NAS1291C3M
16			Rivet	BRFS5AD24
17		 	Pin Collar	NAS2705V03 NAS1080AG05

Figure 14. Sill, 74A313041 and 74A313042, Fastener Index (Sheet 3)
























Idx No.	Eft		Nomenclature	Part Number
18			Rivet	BRFS6AD
19			Pin Collar	NAS2606V04 NAS1080AG06
20			Pin Collar	NAS2606V05 NAS1080AG06
21			Rivet	CSR904B-4-7
22			Rivet	CSR903B-4-7
23			Pin Collar	VLB237-6-4 NAS1080AG06
24			Rivet	NAS1398C5A3
25			Rivet	MS20470AD4
26			Rivet	BRFS5T10
27			Rivet	BRFS5T8
28			Pin Collar	NAS2705V06 NAS1080AG05
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.159 +0.007 -0.000.</p> <p> Hole diameter is 0.191 +0.007 -0.000.</p> <p> Platenut installed with MS20426AD3 rivets.</p> <p> Install under bolt head.</p> <p> Torque bolt to 25 inch-pounds.</p> <p> Hole diameter is 0.1600 +0.0025 -0.0000.</p> <p> Two washers required.</p> <p> Hole diameter is 0.196 +0.007 -0.000.</p> <p> Hole diameter is 0.161 +0.005 -0.000.</p> <p> Hole diameter is 0.1850 +0.0030 -0.0000.</p> <p> Hole diameter is 0.128 +0.006 -0.000.</p> <p> Hole diameter is 0.281 +0.006 -0.000.</p>				

Figure 14. Sill, 74A313041 and 74A313042, Fastener Index (Sheet 4)

22. **TEE, 74A315059, REPLACEMENT.** See figure 15.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

a. Make sure door is loaded correctly and secure (WP013 01).

b. Position former locators (details 25, 110, 115 and 125) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

c. Insert 0.125 inch shims between formers and former locators (details 25, 110, 115 and 125) and C-clamp together at as many points as necessary to securely hold door assembly.

d. Rotate fixture and remove drill blanket (detail 15).

e. Remove fasteners holding tee to structure. See figure 16 for fastener location.

f. Remove damaged tee.

g. Clean all residual sealant from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

h. Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.

i. Position new 74A313059 tee on 74A313043 and 74A313048 formers.

j. Locate 74A313059 tee by aligning edge of chem mill lands to edge of opening in skin.

k. Secure tee in position using C-clamps.

l. Mate drill from skin to tee, see figure 16 for hole diameters.

m. Mate drill from structure to tee, see figure 16 for hole diameters.

n. Loosen C-clamps and remove 74A313059 tee.

o. Apply finish system (A1-F18AC-SRM-500, WP018 00).

p. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

3

q. Apply sealing compound per substeps below:

(1) Fay seal area between skin and tee (A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 16 and (A1-F18AC-SRM-200, WP011 00).

r. Apply finish system (A1-F18AC-SRM-500, WP018 00).

s. Rotate fixture and position drill blanket (detail 18) on door assembly by inserting T-pins (detail 213) at hole numbers 13 and 14, detail B.

t. At hole location 30 through 35 and 39 through 44:

(1) Install traveler bushing (detail 124) in drill bushing (detail 18C).

(2) Drill 0.191 +0.006 -0.000 diameter holes.

(3) Apply finish system (A1-F18AC-SRM-500, WP018 00).

(4) Install platenuts, see figure 16 and (A1-F18AC-SRM-200, WP004 05).

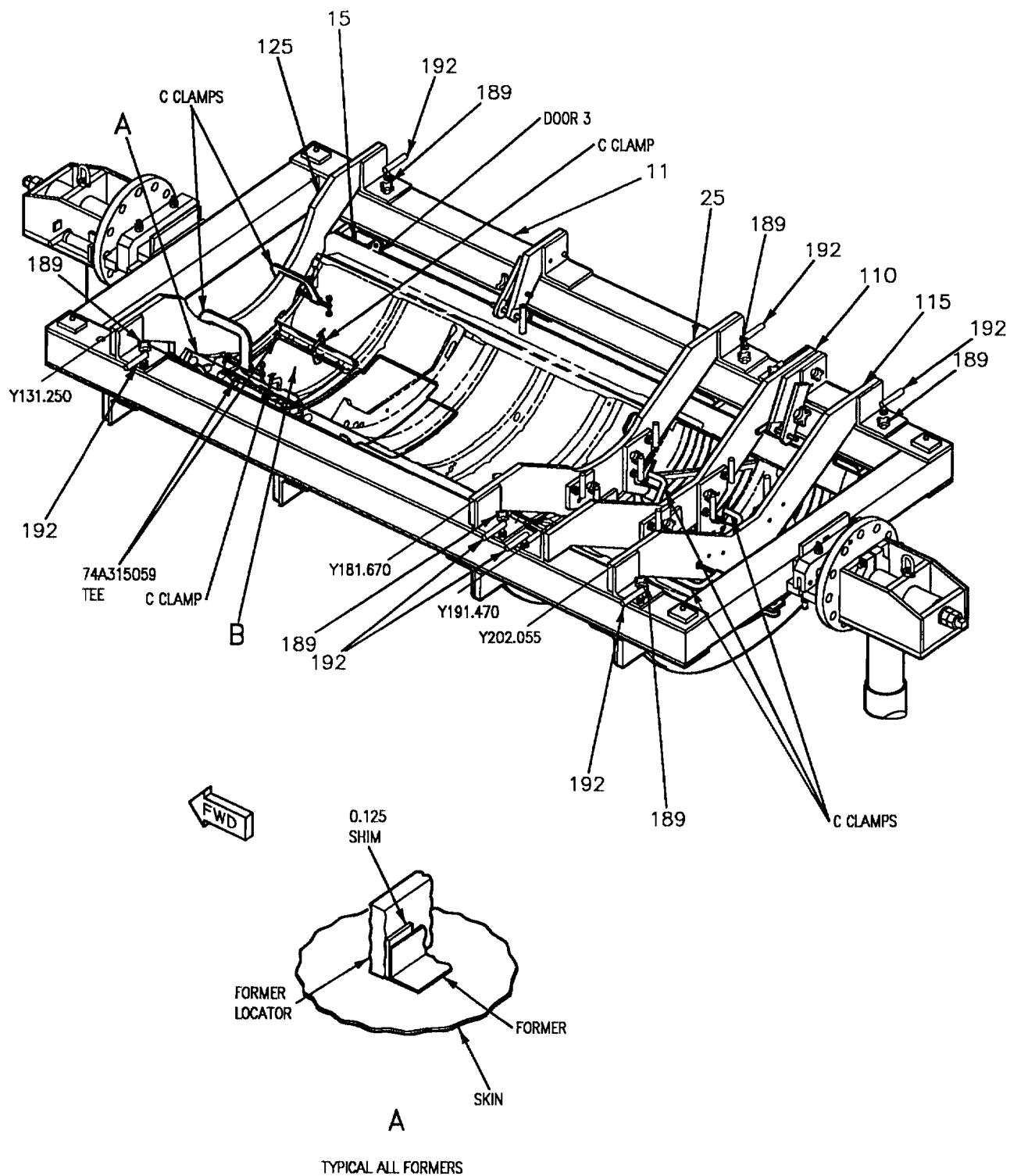


Figure 15. Replacement - 74A315059 Tee (Sheet 1)

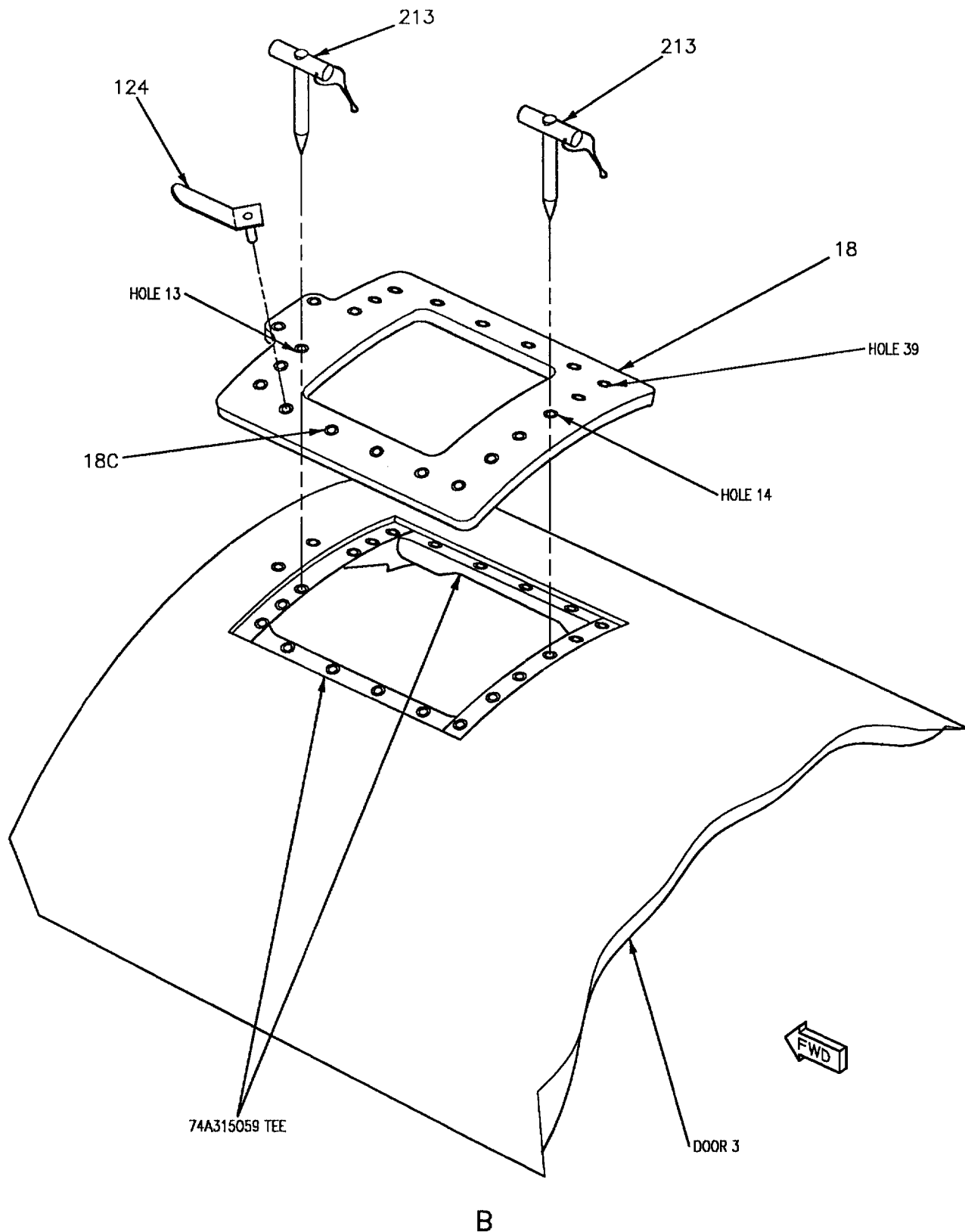


Figure 15. Replacement - 74A315059 Tee (Sheet 2)

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Supports door and checks for alignment and twist.
18	Drill blanket	Provides attach hole pattern in 74A315059 sill.
18C	Drill bushing	Guides traveler bushing (detail 124).
25	Former locator	Locates former at Y179.795.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
124	Traveler bushing	Guides 0.191 diameter drill.
125	Former locator	Locates former at Y131.375.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
213	T-Pin	Locates drill blanket (detail 18) to door assembly.

Figure 15. Replacement - 74A315059 Tee (Sheet 3)

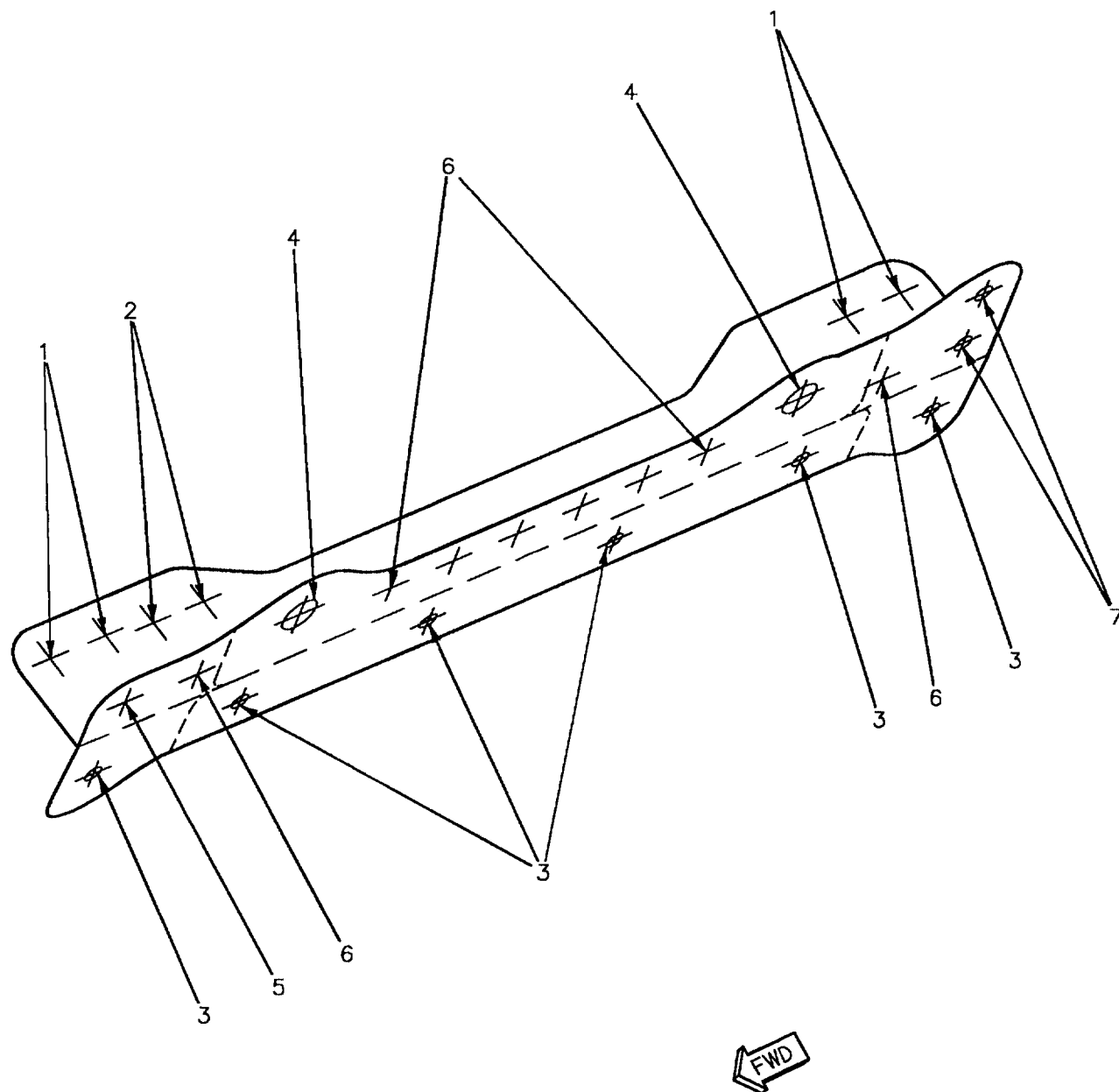


Figure 16. Tee, 74A315059, Fastener Index (Sheet 1)





























Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20470AD5
2			Rivet	MS20470AD4
3		 	Bolt Platenut	NAS663V4HT F49249E3-1
4	 	 	Receptacle  Receptacle 	52956A4-1-119 LW1696-4-1-119
5			Rivet	BRFS6AD
6			Rivet	BRFS5AD
7	 	 	Rivet Pin Collar	BRFS6AD 2706MU-4 NAS1080AG06
<p style="text-align: center;">LEGEND</p> <p> Applicable on 74A313040 door assembly.</p> <p> Applicable on 74A313211 door assembly.</p> <p> Hole diameter is 0.159 +0.007 -0.000.</p> <p> Hole diameter is 0.128 +0.006 -0.000.</p> <p> Hole diameter is 0.191 +0.006 -0.000.</p> <p> Platenut installed with MS20426AD3 rivets.</p> <p> Hole diameter is 0.385 +0.008 -0.000.</p> <p> Receptacle installed with BRFS4AD rivets.</p> <p> Hole diameter is 0.192 +0.006 -0.000.</p> <p> Hole diameter is 0.161 +0.005 -0.000.</p> <p> Hole diameter is 0.185 +0.003 -0.000.</p>				

Figure 16. Tee, 74A315059, Fastener Index (Sheet 2)

23. **LOUVERS, 74A313210 OR 74A313204, REPLACEMENT.** See figure 17.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

a. Remove fasteners holding louver to skin and structure. See figure 18 for fastener location.

b. Remove damaged louver.

c. Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261 10

d. Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.

e. Make sure door is loaded correctly and secure (WP013 01).

f. Position former locators (details 25, 110, 115 and 125) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

g. Insert 0.125 inch shim between formers and former locators (details 25, 110, 115 and 125) and C-clamp together at as many points as necessary to securely hold door assembly, detail A.

h. Position louver locator (detail 109) on former locator (detail 25) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193), detail B.

i. Position hole locator (detail 111) on former locator (detail 110) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193), detail C.

j. Position louver locator (detail 112) on former locator (detail 115) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193), detail D.

k. Locate louver in Z plane location by inserting 0.125 inch shim between louver and drill blanket (detail 15), detail C.

l. Locate louver in X plane location by inserting 0.125 inch shim between louver locators (detail 109 and 112) and louver assembly, detail B and D.

m. Locate louver in Y plane location by inserting 0.125 inch shim between louver locator (detail 113) and louver assembly, detail D.

n. C-clamp louver and shims to louver locators (detail 109 and 112), detail B and D.

o. Mate drill from structure to louver and install temporary fasteners; see figure 18 for hole diameters.

p. Rotate fixture and remove drill blanket (detail 15).

q. Mate drill from skin to louver, see figure 18 for hole diameters.

r. Loosen C-clamps and remove louver.

s. Apply finish system (A1-F18AC-SRM-500, WP018 00).

t. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2 3

u. Apply sealing compound per substeps below:

(1) Fay seal area between louver and structure (A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 18 and (A1-F18AC-SRM-200, WP011 00).

NOTE

Steps v through ac apply to R/H side only, see detail E.

v. Rotate hinge locator (detail 144) into position; locate by installing L-pins (detail 142) and secure by installing handknobs (detail 138), detail E.

w. Loosen handknob (detail 137) and slide clamps (detail 13) into position.

x. Insert L-pins (detail 148) through hinge locator (detail 144), hinge and clamp (detail 13).

y. Insert 0.125 inch shim between hinge and hinge locator (detail 144).

z. install 74A313040 shims between hinge and louver assembly.

aa. Secure hinge by tightening handknob (detail 137).

ab. Mate drill from hinge to louver, see figure 18 for hole diameter.

ac. Wet install fasteners, see figure 18.

ad. Remove louver locator (detail 109) and former locator (detail 25), detail B.

ae. Position former locator (detail 106) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189), detail F.

af. Install hole locator (detail 108) on former locator (detail 106) by inserting L-pin (detail 196) and secure by installing handknob (detail 193).

ag. At hole location 173 through 180, see detail C and F:

(1) Insert drill bushing (detail 153) in hole locators (detail 108 and 111).

(2) Drill 0.195 +0.007 -0.000 diameter holes.

ah. At hole location 62 through 71 and 82 through 91, see details A, B, and G:

(1) Remove former locator (detail 106).

(2) Position former locator (detail 25) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189), detail B.

(3) insert 0.125 inch shim between former and former locator (detail 25) and C-clamp together, detail A.

(4) Rotate fixture and position drill blanket (detail 19) with pads (detail 162 and 166) resting on 74A313210 louvers or 74A313204 louver frames, detail G.

(5) Turn adjustment screws (detail 167) until drill blanket (detail 19) is resting on 74A313188 and 74A313189 formers, detail G.

(6) Locate drill blanket (detail 19) using existing holes in 74A313188 and 74A313189 formers.

(7) C-clamp drill blanket (detail 19) to door assembly.

(8) Insert traveler bushing (detail 205) in drill bushing (detail 19C), detail G.

(9) Drill 0.195 +0.007 -0.000 diameter holes; see figure 18 for hole location.

ai. Loosen C-clamps and remove drill blanket (detail 19).

aj. At hole location 113 through 121 or 125 through 133, see detail H:

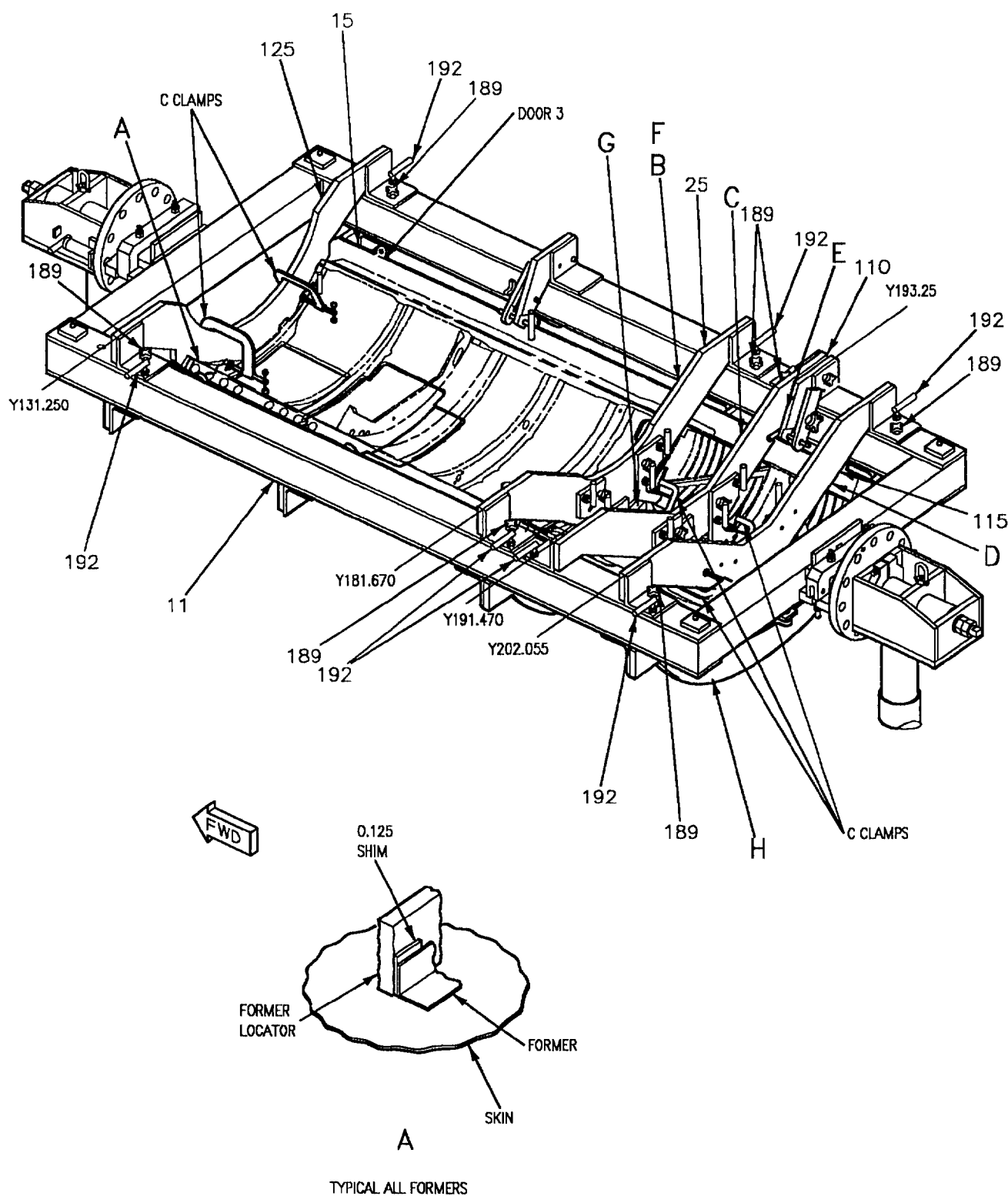
(1) Install drill blanket (detail 15).

(2) Insert traveler bushing (detail 203) into drill bushing (detail 15C), detail H.

(3) Drill 0.385 +0.008 -0.000 diameter holes, see figure 18 for hole location.

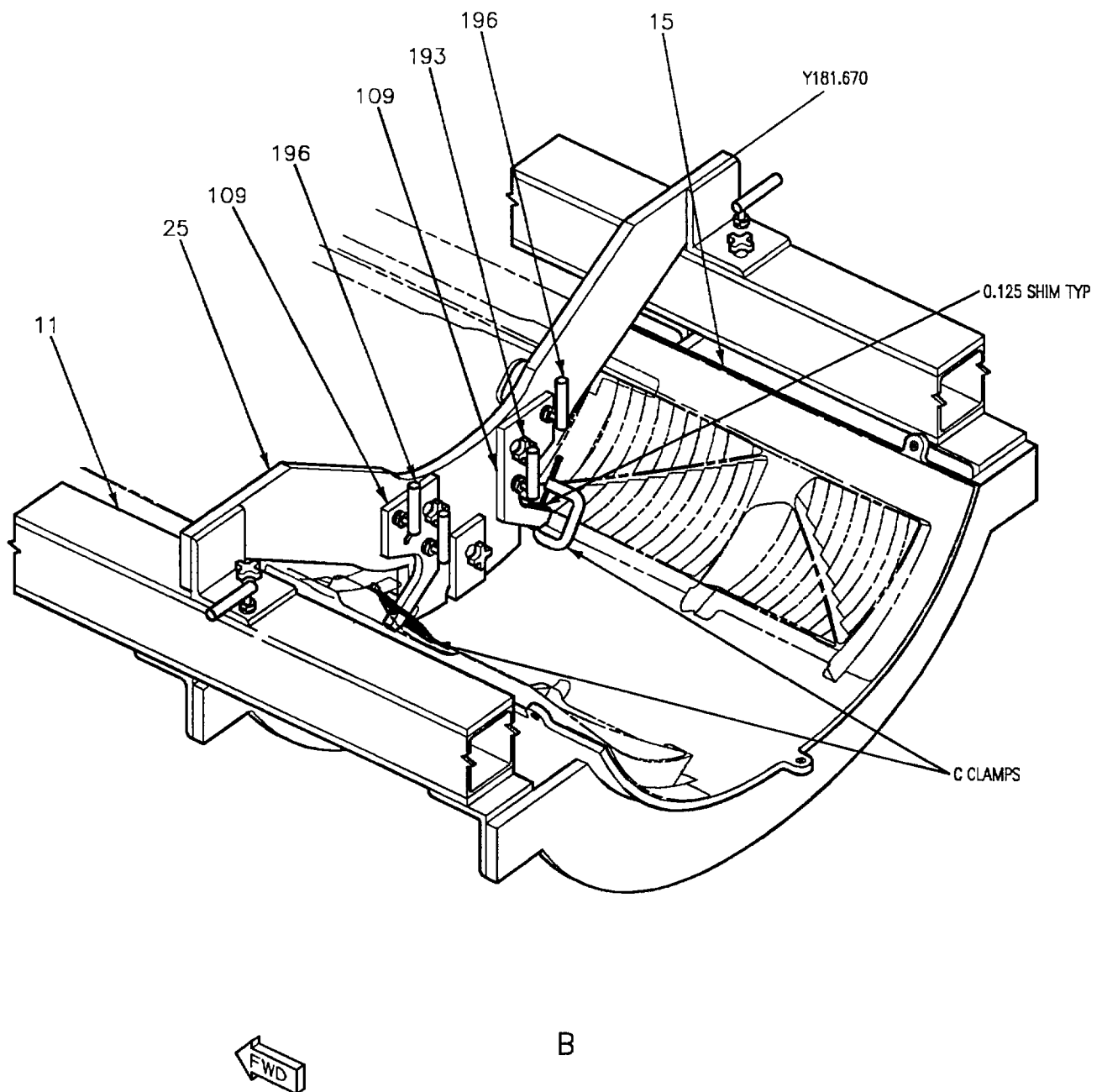
ak. Apply finish system (A1-F18AC-SRM-500, WP018 00).

al. Install 74A313040 screen and EMI electrical bonding strips (WP013 00).



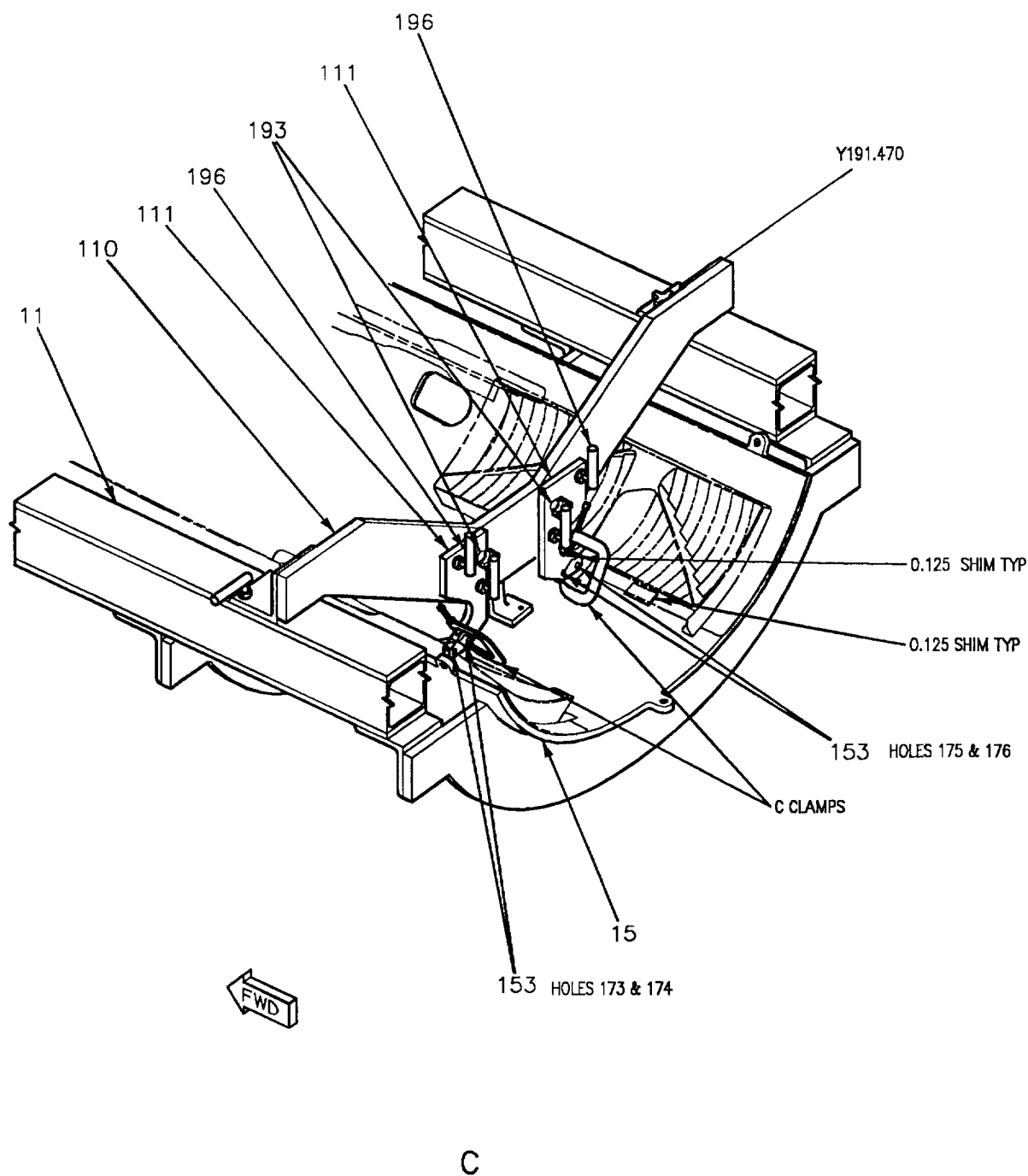
18AC-SRM-221-(62-1)01-CATI

Figure 17. Replacement - 74A313210 or 74A313204 Louvers (Sheet 1)



18AC-SRM-221-(62-2)01-CATI

Figure 17. Replacement - 74A313210 or 74A313204 Louvers (Sheet 2)



18AC-SRM-221-(62-3)01-CATI

Figure 17. Replacement - 74A313210 or 74A313204 Louvers (Sheet 3)

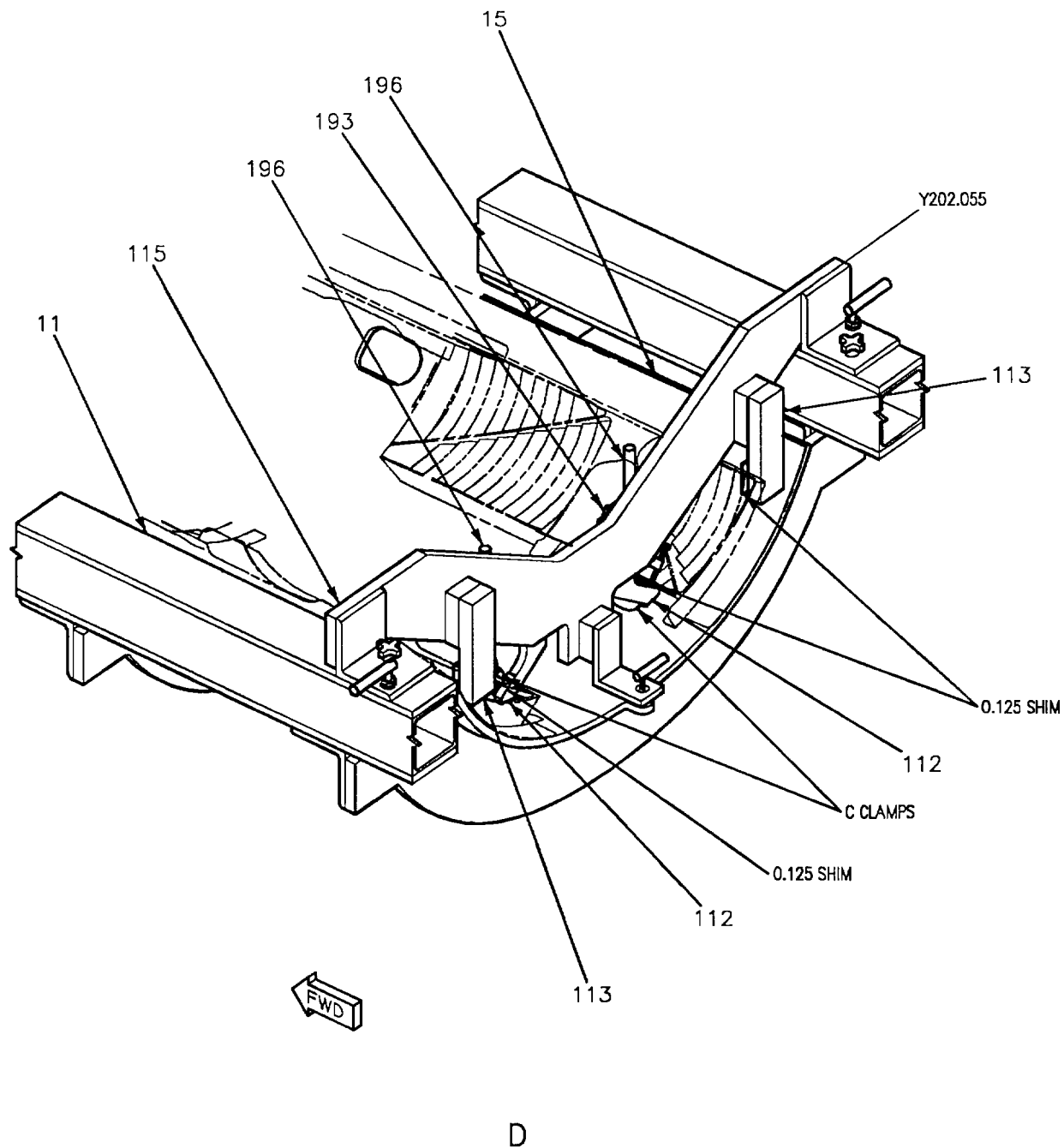
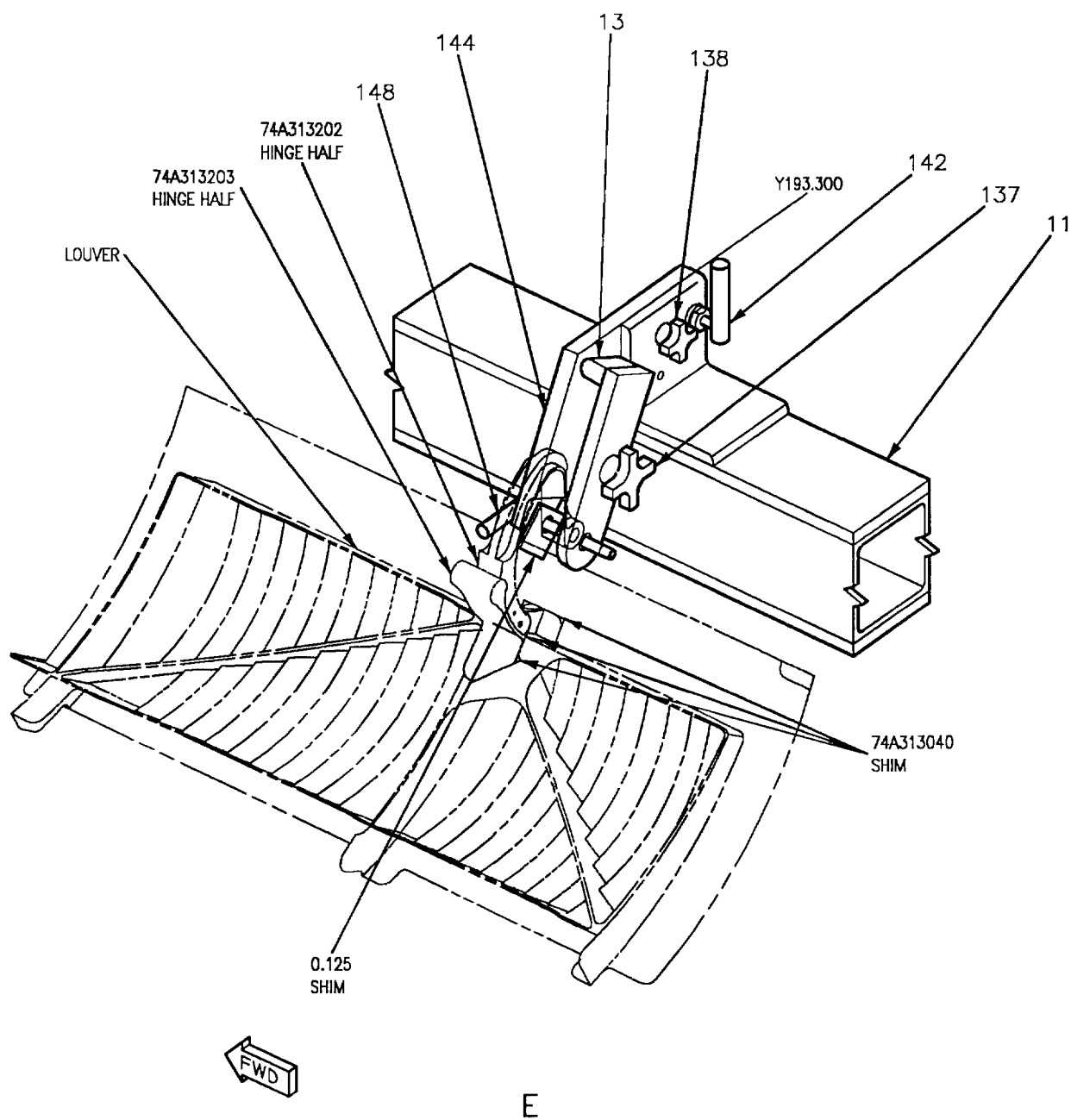
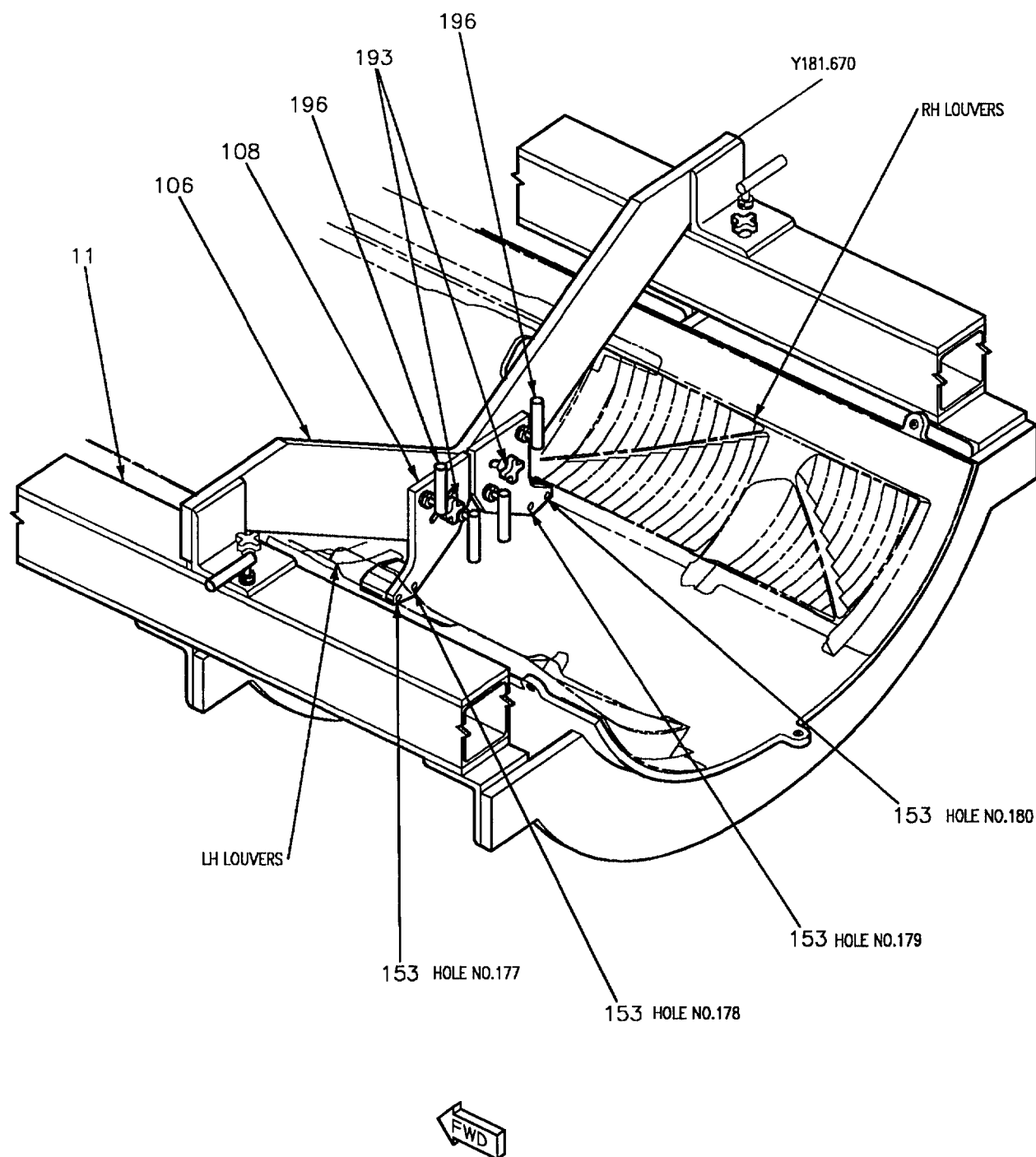


Figure 17. Replacement - 74A313210 or 74A313204 Louvers (Sheet 4)



18AC-SRM-221-(62-5)01-CATI

Figure 17. Replacement - 74A313210 or 74A313204 Louvers (Sheet 5)



F

Figure 17. Replacement - 74A313210 or 74A313204 Louvers (Sheet 6)

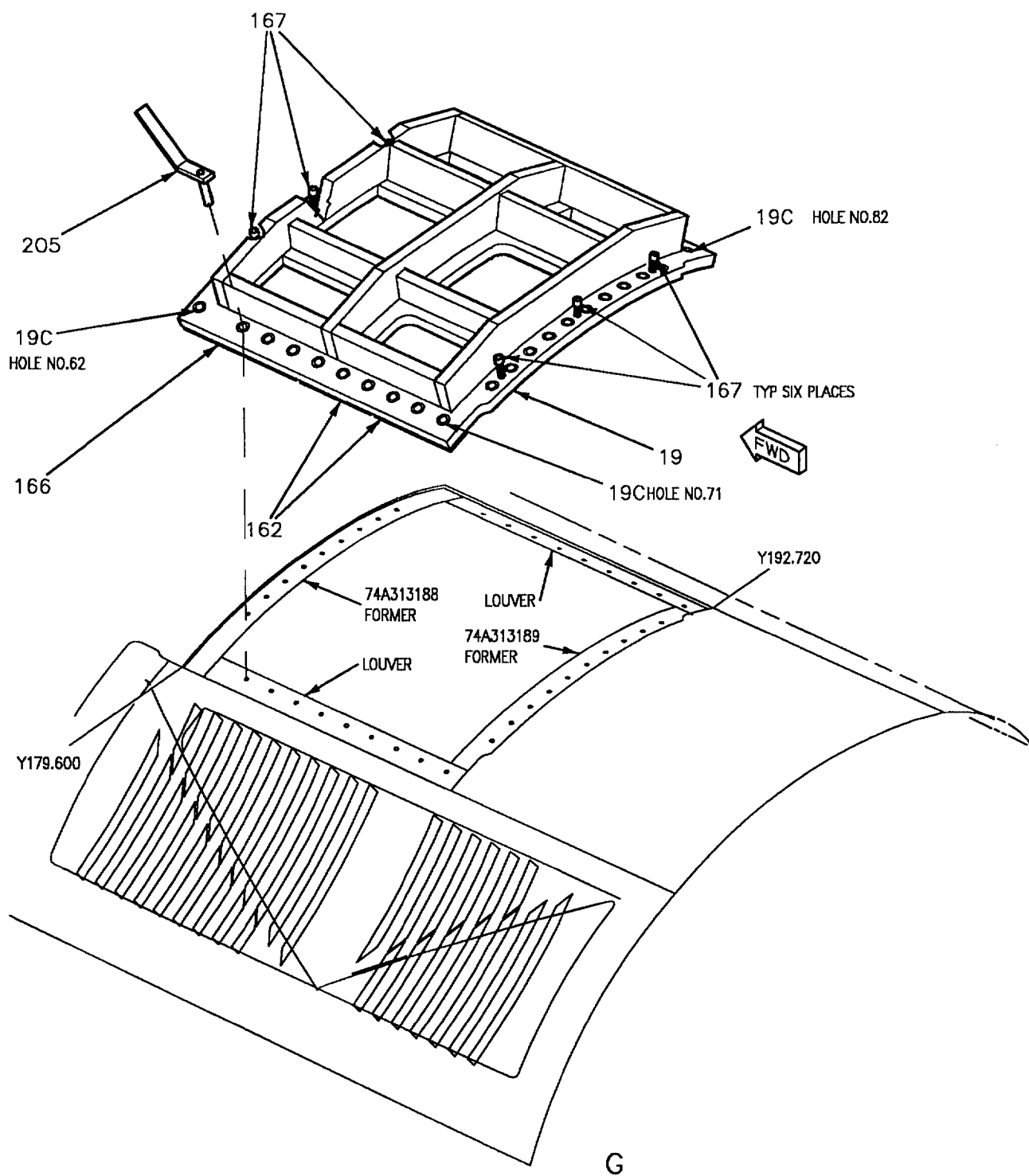
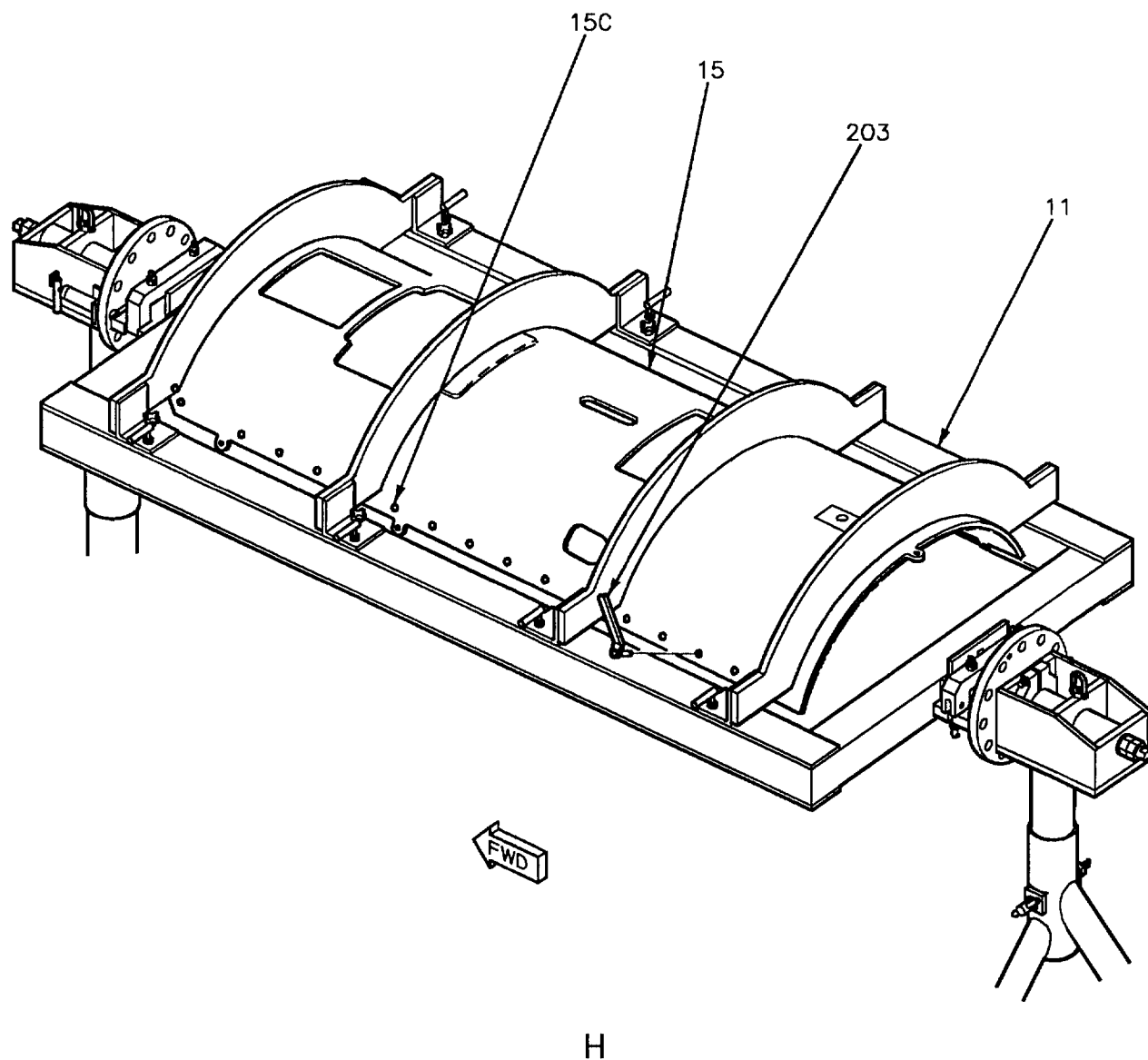


Figure 17. Replacement - 74A313210 or 74A313204 Louvers (Sheet 7)



18AC-SRM-221-(62-8)01-CAT1

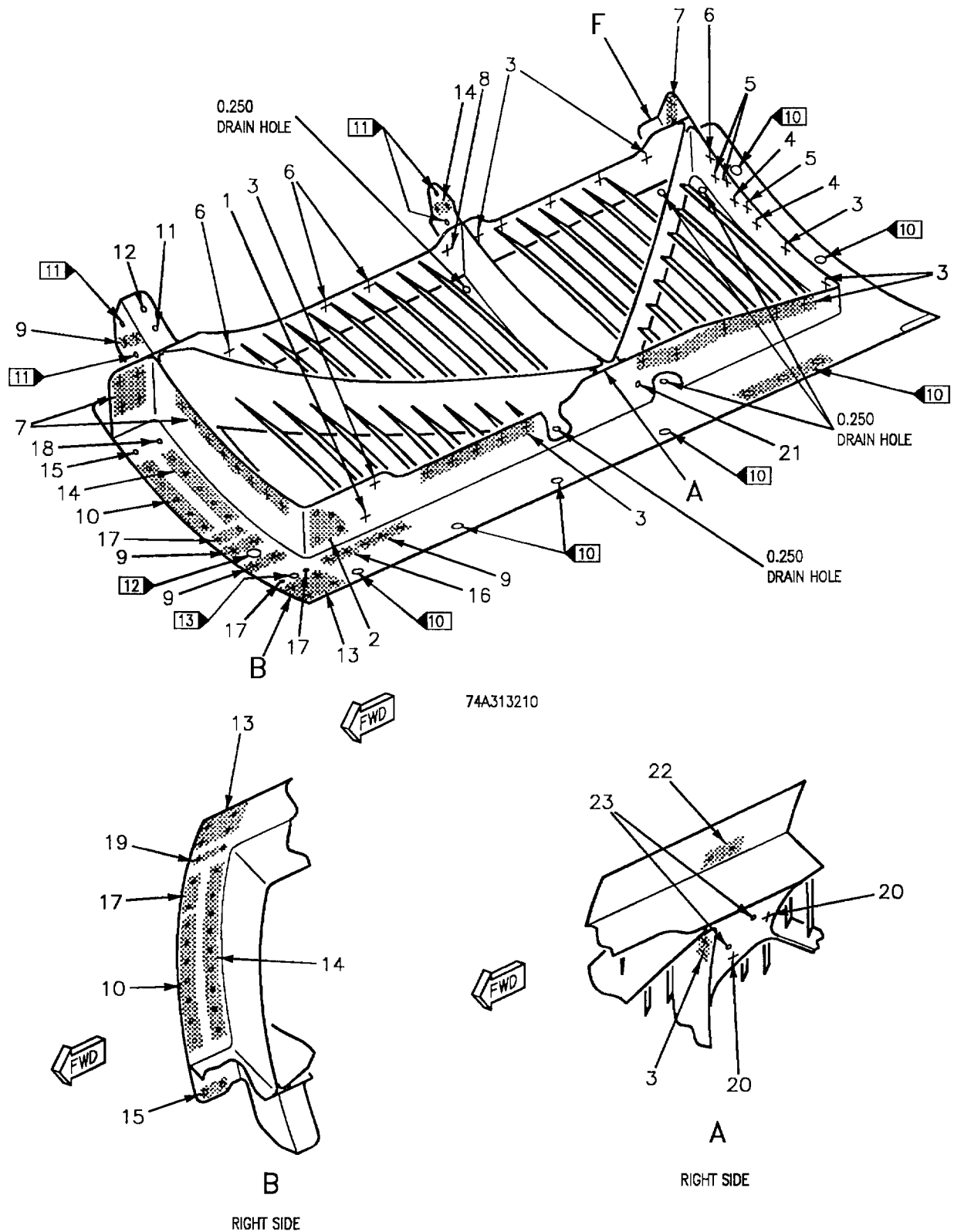
Figure 17. Replacement - 74A313210 or 74A313204 Louvers (Sheet 8)

Detail No.	Name	Function
11	Frame	Main support for all details.
13	Clamp	Secures hinge to detail 144.
15	Drill blanket	Supports door and checks for alignment and twist.
15C	Drill bushing	Guides traveler bushing (detail 203).
19	Drill blanket	Locates holes in louver.
19C	Drill bushing	Guides traveler bushing (detail 205).
25	Former locator	Locates former at Y179.600.
106	Former locator	Locates hole pattern in louver.
108	Hole locator	Locates hole number 177, 178, 179 and 180.
109	Louver locator	Locates louver In X plane location.
110	Former locator	Locates former at Y192.720.
111	Hole locator	Locates hole number 173, 174, 175 and 176.
112	Louver locator	Locates louver in X plane location.
113	Louver locator	Locates louver in Y plane location.
115	Former locator	Locates former at Y202.055.
125	Former locator	Locates former at Y131.375.
137	Handknob	Applies pressure to detail 13.
138	Handknob	Secures detail 144.
142	L-pin	Locates detail 144.
144	Hinge locator	Locates and supports aft hinge.
148	L-pin	Locates hinge to detail 13 and 144.
153	Drill bushing	Guides 0.195 diameter drill.
162	Pad	Provides resting surface for drill blanket.
166	Pad	Provides resting surface for drill blanket.
167	Adjustment screw	Adjusts height of drill blanket on former.

Figure 17. Replacement - 74A313210 or 74A313204 Louvers (Sheet 9)

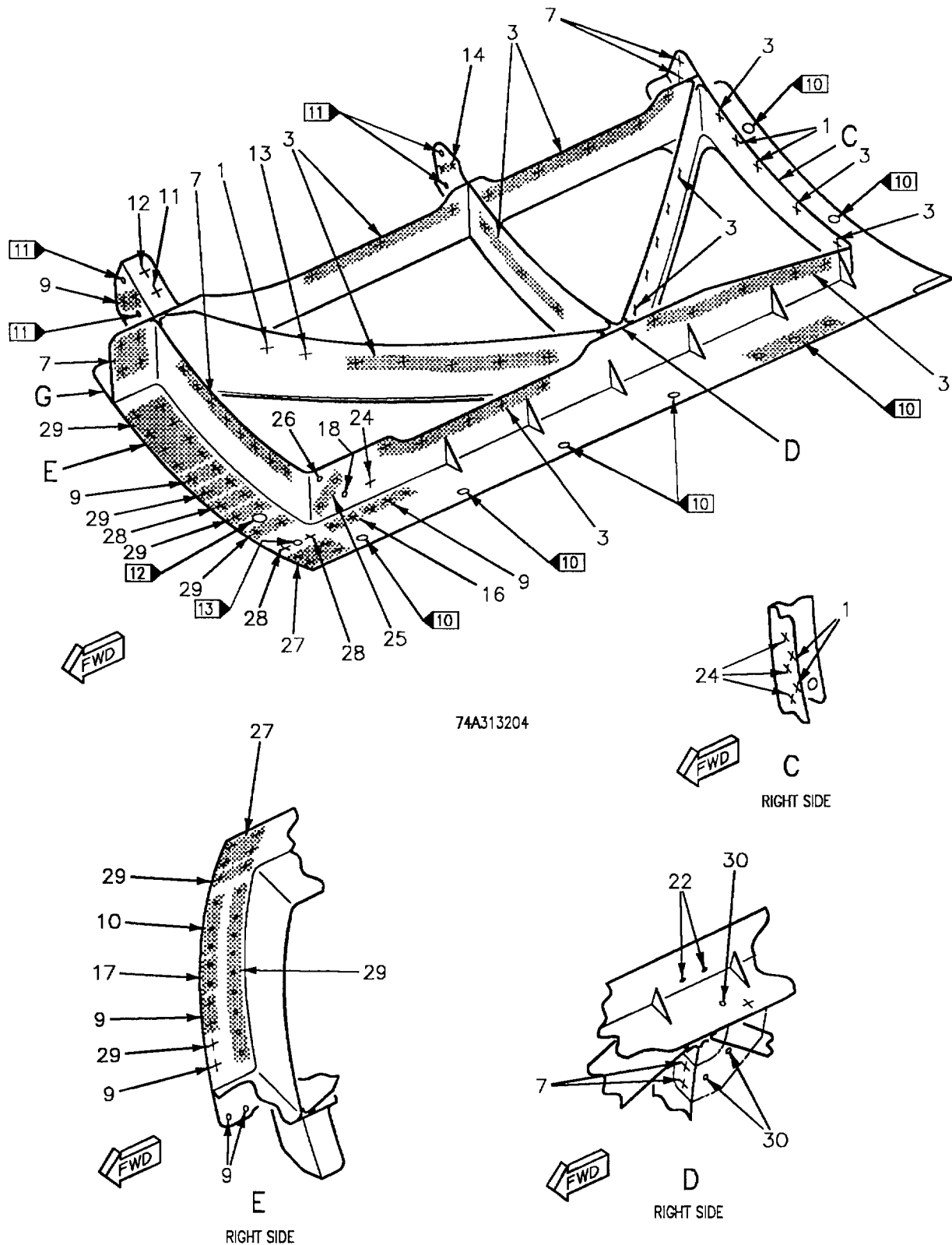
Detail No.	Name	Function
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
193	Handknob	Secures louver and hole locators to former locators.
196	L-pin	Locates louver and hole locators to former locators.
203	Traveler bushing	Guides 0.385 diameter hole.
205	Traveler bushing	Guides 0.195 diameter hole.

Figure 17. Replacement - 74A313210 or 74A313204 Louvers (Sheet 10)



18AC-SRM-221-(63-1)01-CATI

Figure 18. Louver, 74A313210 or 74A313204, Fastener Index (Sheet 1)



18AC-SRM-221-(63-2)01-CATI

Figure 18. Louver, 74A313210 or 74A313204, Fastener Index (Sheet 2)

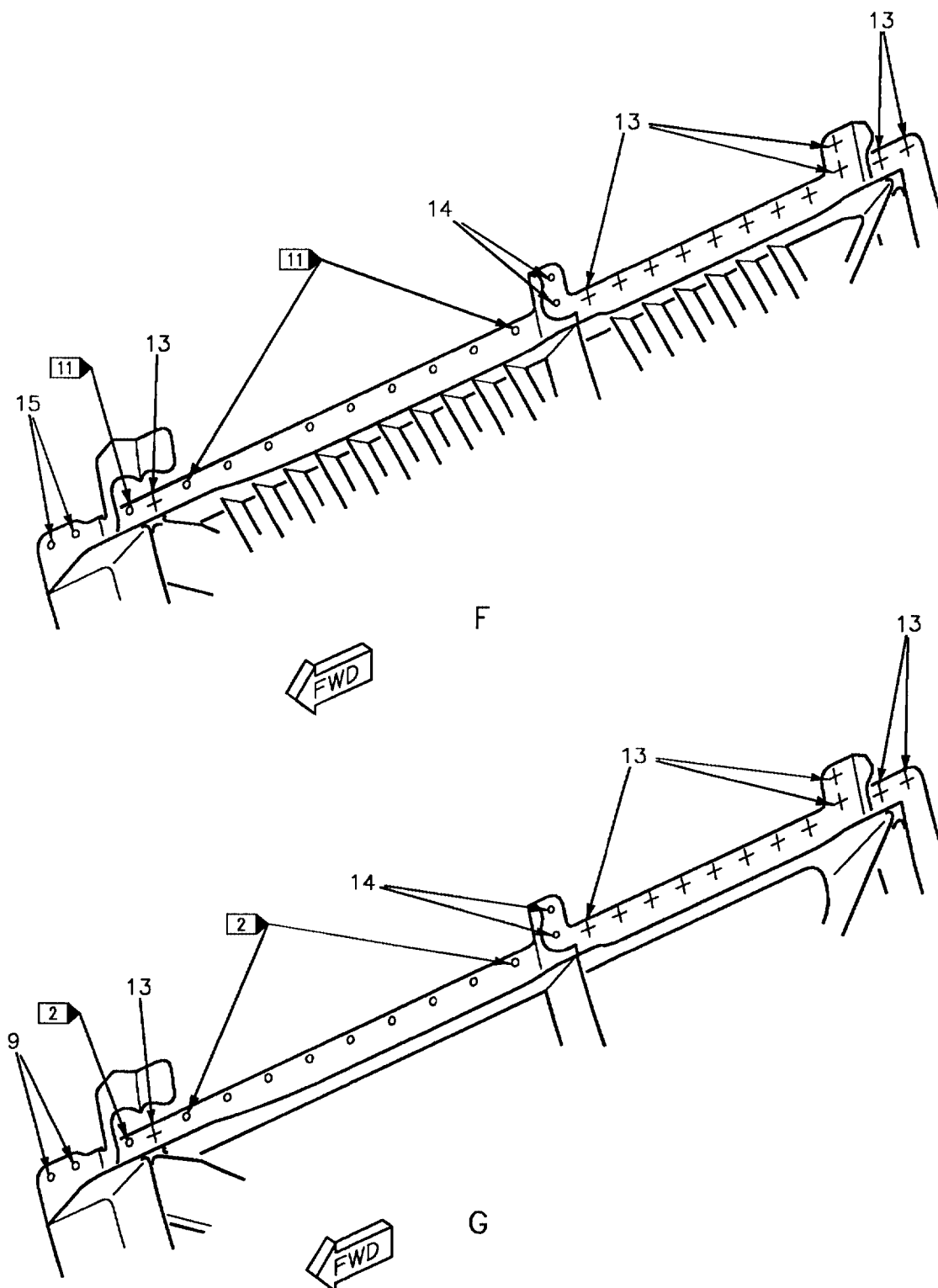


Figure 18. Louver, 74A313210 or 74A313204, Fastener Index (Sheet 3)
























Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20470AD5
2			Pin Collar	VLB237-6-4 NAS1080AG06
3			Rivet	MS20470AD4
4			Rivet	NAS1398D5A-4
5			Rivet	NAS1398D5A-5
6			Rivet	NAS1398D4A-4
7			Rivet	MS20470AD6
8			Rivet	NAS1398D4A-3
9			Rivet	BRFS6AD
10			Pin Collar	NAS2705V05 NAS1080AG05
11			Pin Collar	NAS2706V05 NAS1080AG06
12			Pin Collar	NAS2606V05 NAS1080AG06
13			Rivet	BRFS5AD5
14			Pin Collar	NAS2705V04 NAS1080AG05
15			Pin Collar	NAS2706V05 NAS1080AG06
16	 	 	Rivet Rivet	BRFS5T8 BRFS6AD
17			Pin Collar	NAS2705V06 NAS1080AG05
18			Pin Collar	NAS2706V04 NAS1080AG06
19			Pin Collar	NAS2705V03 NAS1080AG05
20			Rivet	1247-408

Figure 18. Louver, 74A313210 or 74A313204, Fastener Index (Sheet 4)


Idx No.	Eft		Nomenclature	Part Number
21			Rivet	NAS1398D6A6
22			Bolt Washer Nut	NAS663V6HT AN960JD10 NAS1291C3M
23			Rivet	NAS1398D6A4
24			Rivet	MS20426AD5
25			Pin Collar	NAS2606V07 NAS1080AG06
26			Pin Collar	NAS2606V08 NAS1080AG06
27			Rivet	BRFS5T6
28			Rivet	BRFS5T10
29			Rivet	BRFS5T8
30			Nut Washer	NAS673V4 AN960JD10
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.159 +0.007 -0.000.</p> <p> Hole diameter is 0.191 +0.007 -0.000.</p> <p> Hole diameter is 0.128 +0.006 -0.000.</p> <p> Hole diameter is 0.160 + 0.004 - 0.000.</p> <p> Hole diameter is 0.1850 +0.0030 -0.0000.</p> <p> Hole diameter is 0.1635 +0.0025 -0.0000.</p> <p> Hole diameter is 0.1895 +0.0025 -0.0000.</p> <p> Left side only.</p> <p> Right side only.</p> <p> Hole diameter is 0.385 +0.008 -0.000.</p> <p> Hole diameter is 0.195 +0.007 -0.000.</p> <p> Hole diameter is 0.469 +0.007 -0.000.</p> <p> Hole diameter is 0.281 +0.007 -0.000.</p>				

Figure 18. Louver, 74A313210 or 74A313204, Fastener Index (Sheet 5)

24. **ANGLE, 74A313180, REPLACEMENT.** See figure 19.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

a. Make sure door is loaded correctly and secure (WP013 01).

b. Position former locators (detail 25, 110, 115, 125 and 129) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

c. Insert 0.125 inch shims between formers and former locators (details 25, 110, 115, 125 and 129) and C-clamp together at as many points as necessary to securely hold door assembly, detail A.

d. Rotate fixture and remove drill blanket (detail 15).

e. Remove fasteners holding angle to structure. See figure 20 for fastener location.

f. Remove damaged angle.

g. Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

h. Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.

i. Position angle locators (details 20 and 23) on former locator (detail 129) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193).

j. Position new 74A313180 angle on 74A313187 and 74A313204 or 74A313210 louver.

k. Locate 74A313180 angle net to 74A313055 skin.

l. Position 0.125 inch shim between angle locators (details 20 and 23) and 74A313180 angles, detail B.

m. Secure angle in position using C-clamps.

n. Mate drill from skin to angle, see figure 20 for hole diameters.

o. Mate drill from structure to angle, see figure 20 for hole diameters.

p. Loosen C-clamps and remove 74A313180 angle.

q. Apply finish system (A1-F18AC-SRM-500, WP018 00).

r. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

3

s. Apply sealing compound per substeps below:

(1) Fay seal area between skin and angle (A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 20 and (A1-F18AC-SRM-200, WP011 00).

t. Apply finish system (A1-F18AC-SRM-500, WP018 00).

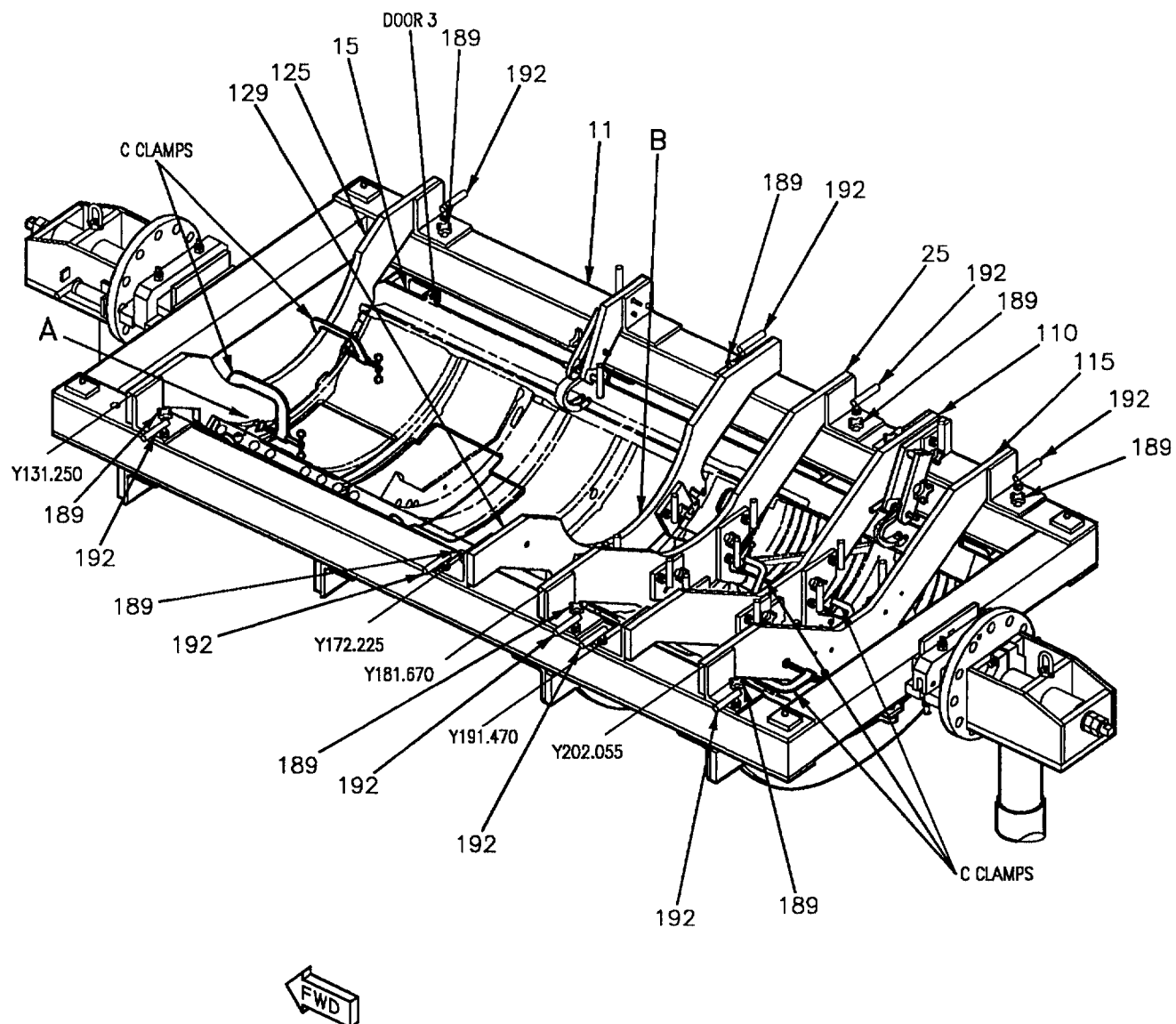
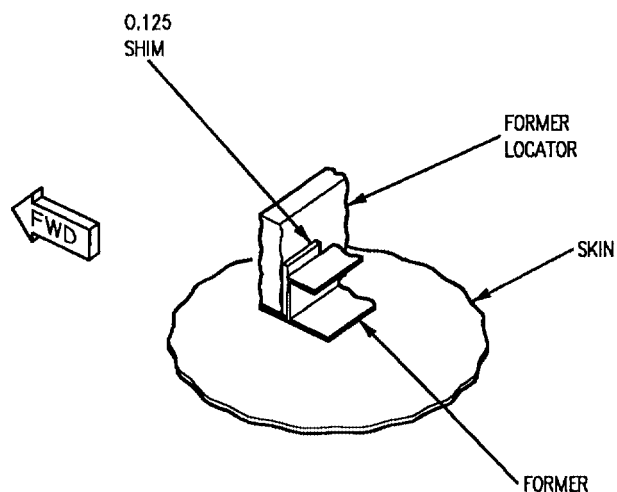


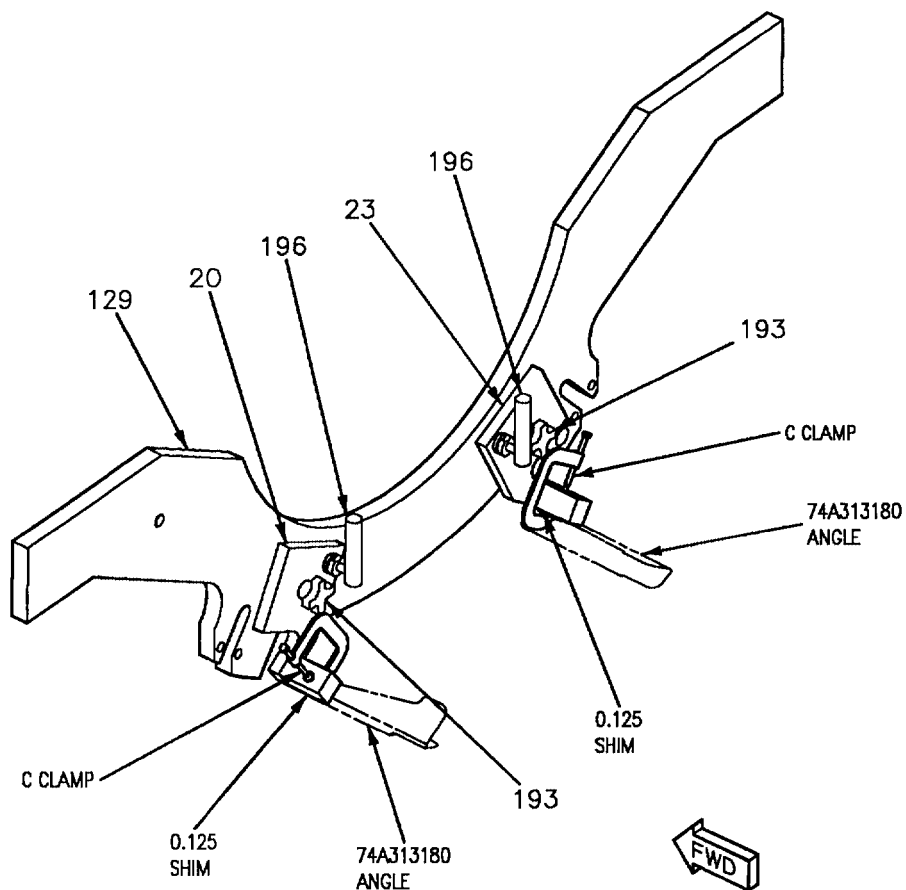
Figure 19. Replacement - 74A313180 Angle (Sheet 1)

18AC-SRM-221-(64-1)01-CATI



A

TYPICAL ALL FORMERS



B

Figure 19. Replacement - 74A313180 Angle (Sheet 2)

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Supports door and checks for alignment and twist.
20	Angle locator	Locates 74A313180 angle, left side.
23	Angle locator	Locates 74A313180 angle, right side.
25	Former locator	Locates former at Y179.795.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
125	Former locator	Locates former at Y131.375
129	Former locator	Locates former at Y172.100.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
193	Handknob	Secures details 20 and 23 to detail 129.
196	L-Pin	Locates details 20 and 23 to detail 129.

Figure 19. Replacement - 74A313180 Angle (Sheet 3)

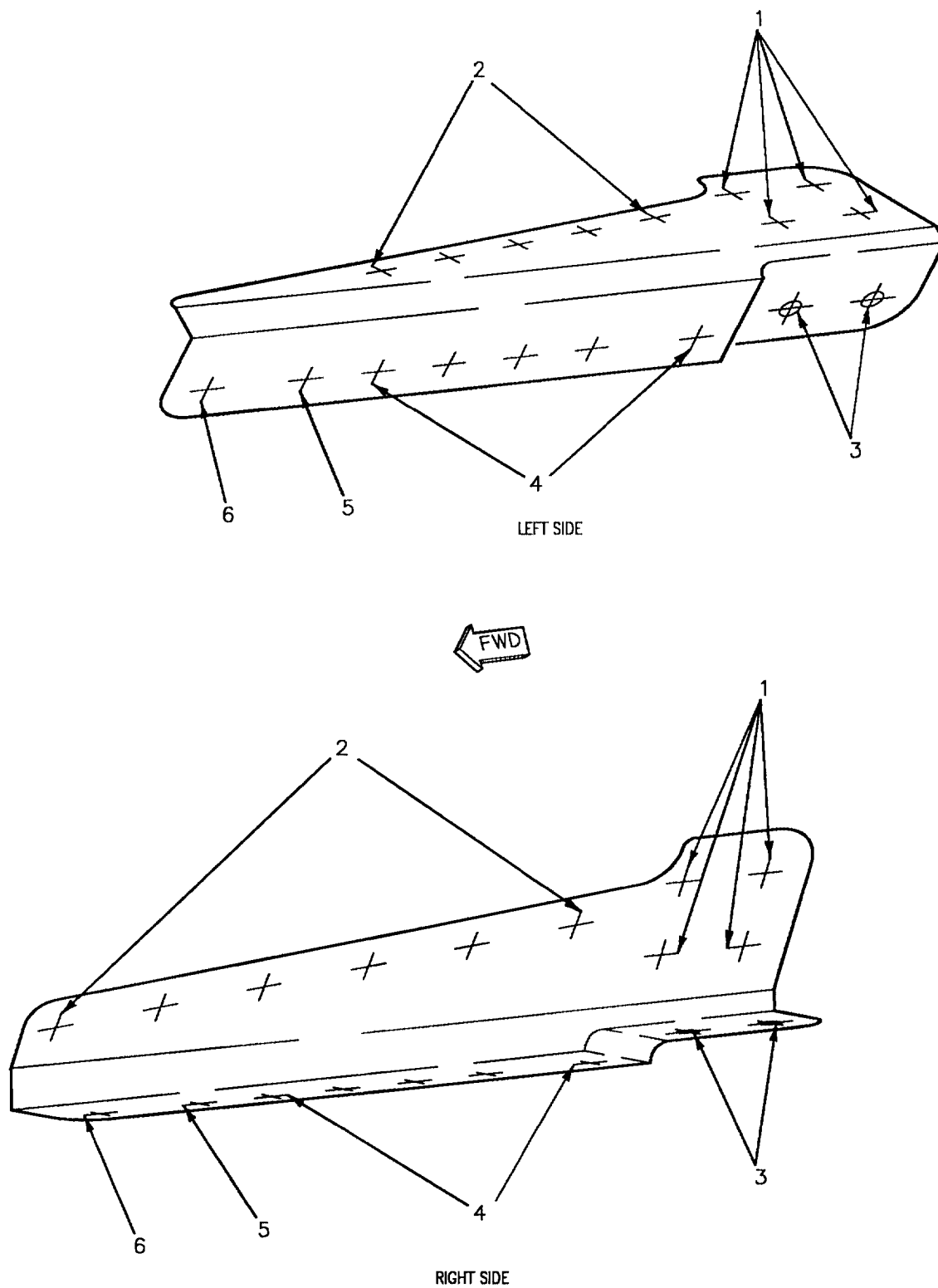


Figure 20. Angle, 74A313180, Fastener Index (Sheet 1)




















Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20470AD6
2			Rivet	MS20470AD4
3	 	 	Rivet Pin Collar	BRFS6AD NAS2706V05 NAS1080AG06
4			Rivet	BRFS5AD5
5		 	Rivet Pin Collar	BRFS5T8 SLS100CT-EU4-4 NAS1080UG04
6			Rivet	BRFS5T8
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.191 +0.007 -0.000.</p> <p> Hole diameter is 0.128 +0.006 -0.000.</p> <p> Applicable on 74A313040 door assembly.</p> <p> Applicable on 74A313211 door assembly.</p> <p> Hole diameter is 0.1895 +0.0025 -0.0000.</p> <p> Hole diameter is 0.159 +0.007 -0.000.</p> <p> Hole diameter is 0.1245 +0.0015 -0.0007.</p> <p> Applicable on left side of 74A313040 door assembly.</p>				

Figure 20. Angle, 74A313180, Fastener Index (Sheet 2)

25. SUPPORT, 74A313219, REPLACE-MENT. See figure 21.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, Class A-1/2	Sealing Compound

a. Make sure door is loaded correctly and secure (WP013 01).

b. Position former locators (detail 25, 110, 115 and 125) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

c. Insert 0.125 inch shims between formers and former locators (details 25, 110, 115 and 125) and C-clamp together at as many points as necessary to securely hold door assembly.

d. Rotate fixture and remove drill blanket (detail 15).

e. Remove fasteners holding support to skin and structure. See figure 22 for fastener location.

f. Remove damaged support.

g. Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

h. Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.

i. Install drill blanket (detail 15), (WP013 01).

j. Position locator (detail 210) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189), detail B.

k. Place 74A313219 support in position.

l. Position support locator (detail 130) on locator (detail 210) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193).

m. Rotate 74A313219 support on support locator (detail 130) until pin (detail 132) can be inserted into position.

n. Mate drill from structure to support and install temporary fasteners; see figure 22 for hole diameters.

o. Remove support locator (detail 130), locator (detail 210) and drill blanket (detail 15).

p. Rotate fixture and mate drill from skin to support; see figure 22 for hole diameters.

q. Remove 74A313219 support.

r. Apply finish system (A1-F18AC-SRM-500, WP018 00).

s. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

3

t. Apply sealing compound per substeps below:

(1) Fay seal area between skin and support (A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 22 and (A1-F18AC-SRM-200, WP011 00).

u. Apply finish system (A1-F18AC-SRM-500, WP018 00).

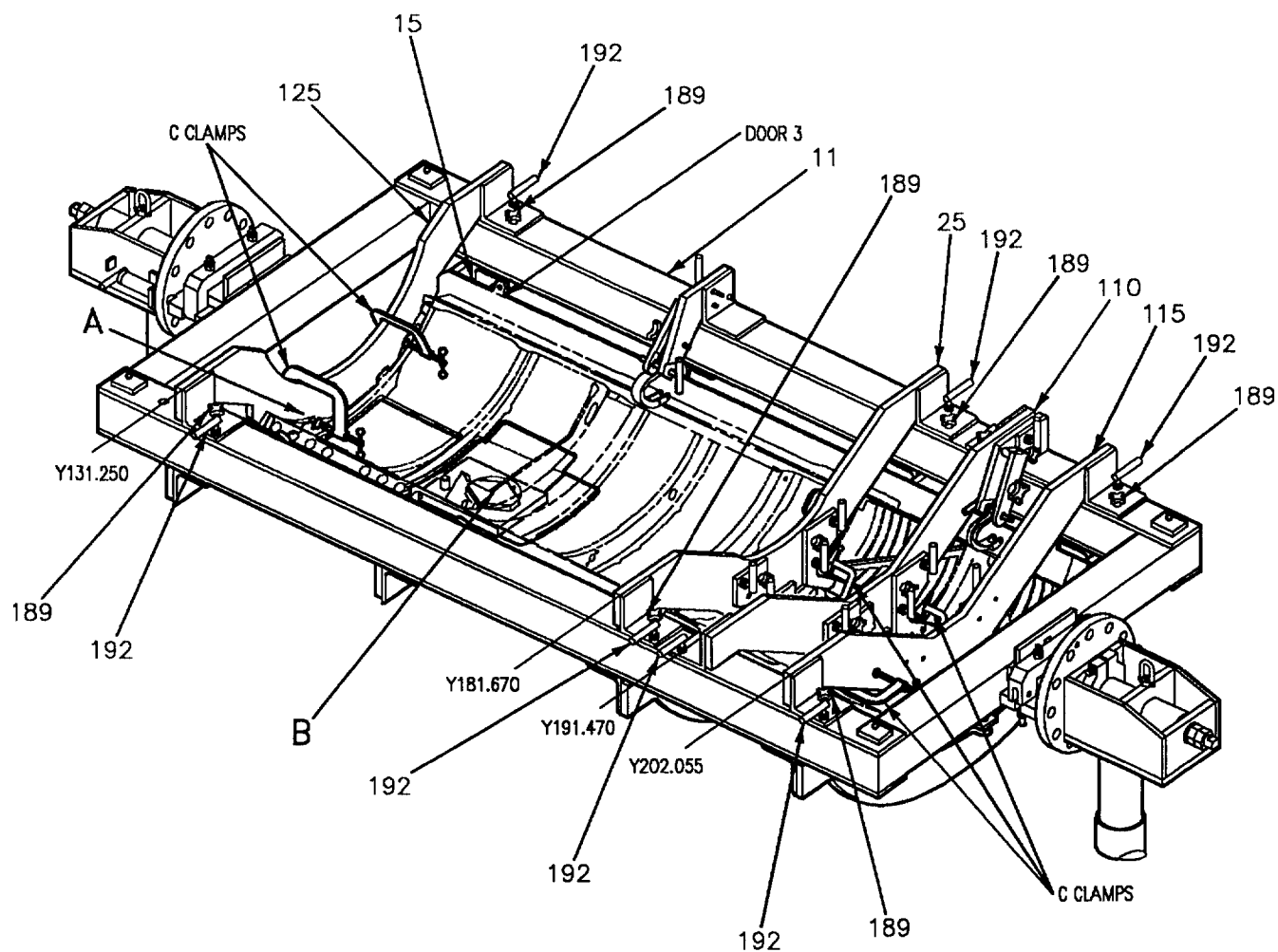


Figure 21. Replacement - 74A313219 Support (Sheet 1)

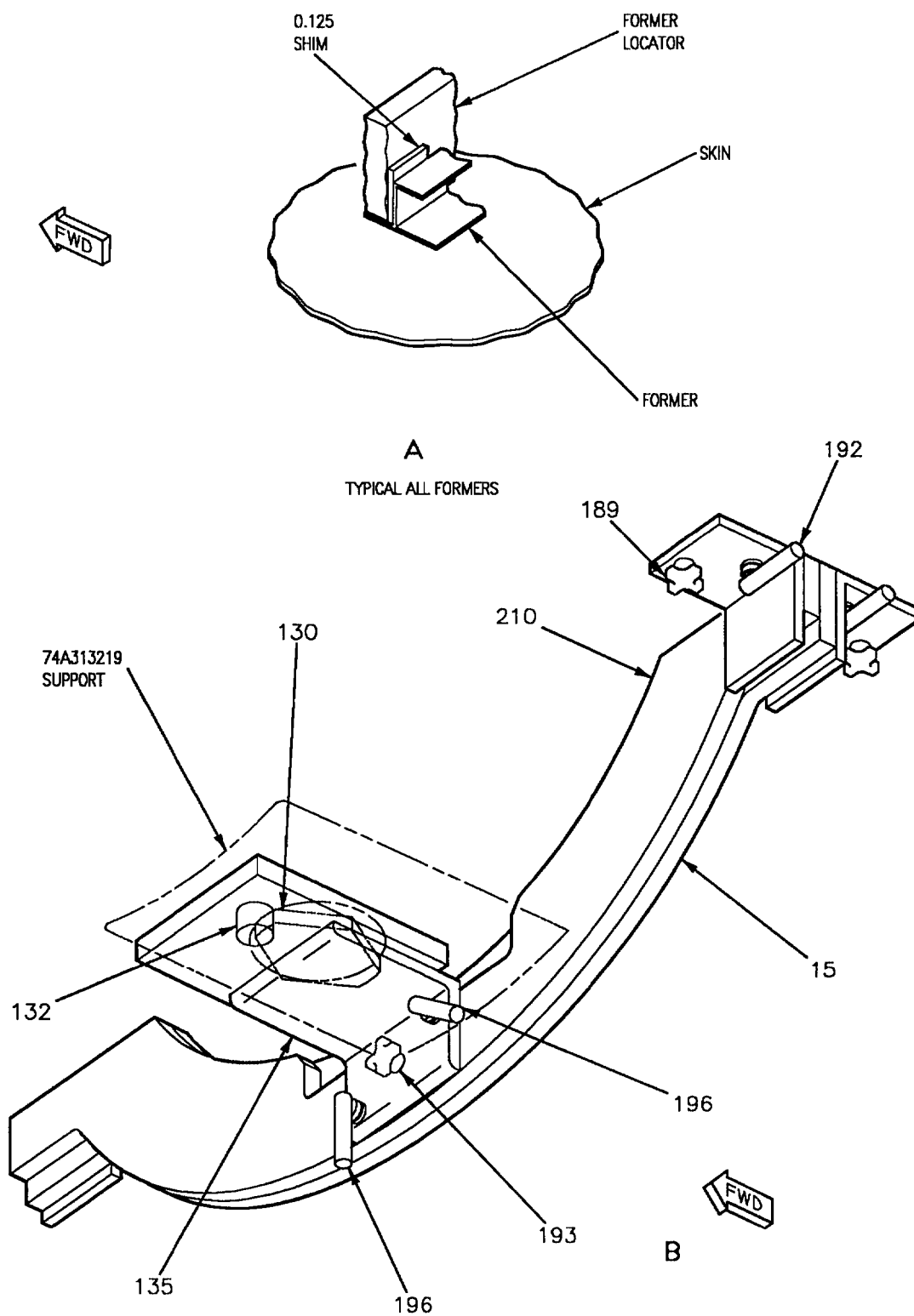


Figure 21. Replacement - 74A313219 Support (Sheet 2)

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Supports door and checks for alignment and twist.
25	Former locator	Locates former at Y179.795.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
125	Former locator	Locates former at Y131.375.
130	Support locator	Locates 74A313219 support.
132	Pin	Keeps 74A313219 support located while drilling.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
193	Handknob	Secures detail 130 to detail 210.
196	L-Pin	Locates detail 130 to detail 210.
210	Locator	Supports detail 130.

Figure 21. Replacement - 74A313219 Support (Sheet 3)

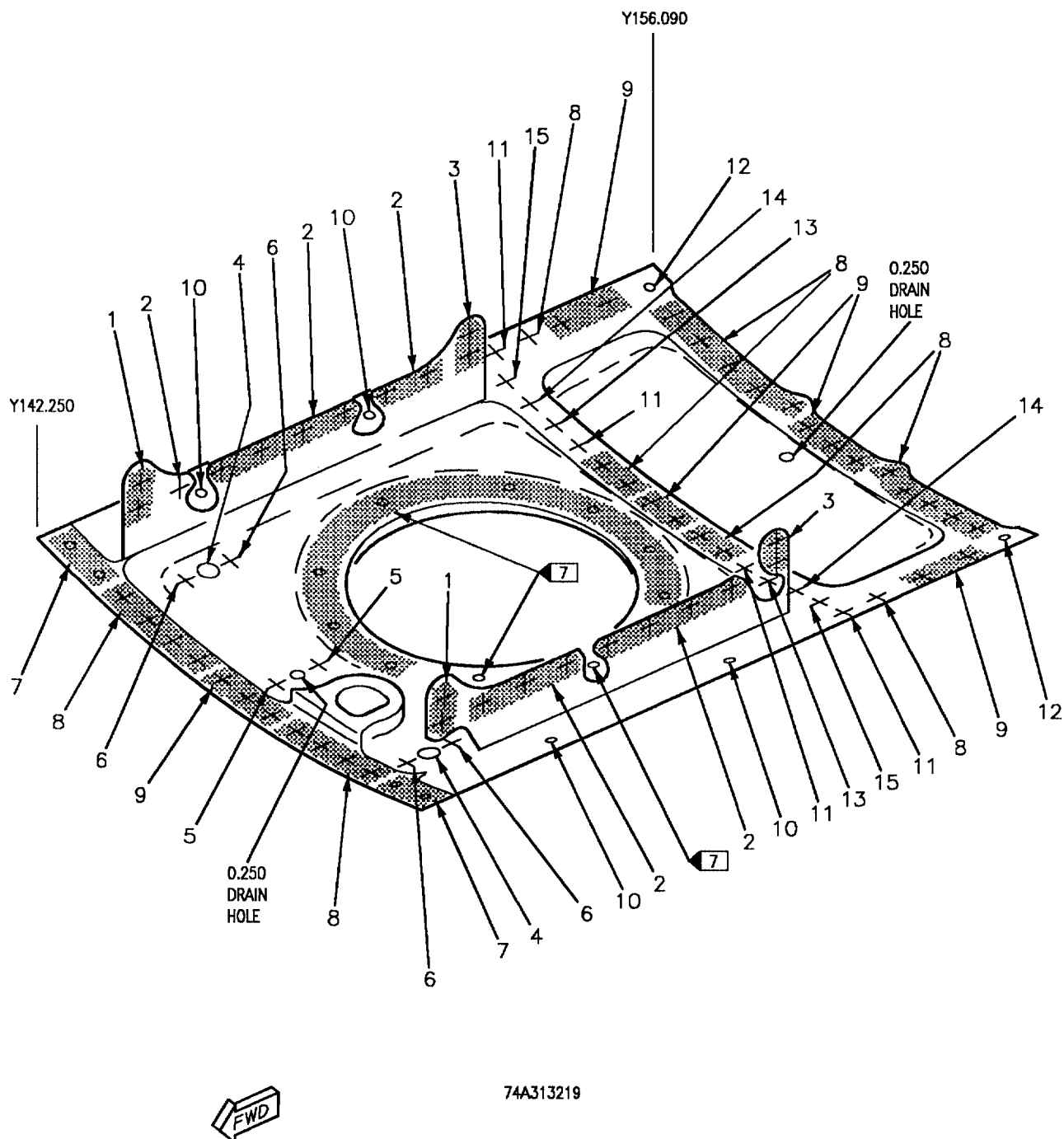


Figure 22. Support, 74A313219, Fastener Index (Sheet 1)





















Idx No.	Eft		Nomenclature	Part Number
1			Rivet	CSR903B-4-6
2			Rivet	MS20470AD4
3			Rivet	MS20470AD5
4			Receptacle	52956A4-1-110
5			Rivet	MS20426AD3
6			Rivet	BRFS4AD
7			Pin Collar	HLT51TB6-5 SW1000-6M
8			Pin Collar	HLT311TA5-5 SW1000-5M
9			Pin Collar	HLT311TA5-4 SW1000-5M
10			Bolt Washer Nut	HT4025L3-5 AN960JD10 NAS1291C3M
11			Pin Collar	HLT311TA5-6 SW1000-5M
12			Pin Collar	HLT51TB6-4 SW1000-6M
13			Pin Collar	HLT311TA5-7 SW1000-5M
14			Pin Collar	HLT311TA5-9 SW1000-5M
15			Pin Collar	HLT311TA5-8 SW1000-5M
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.128 +0.006 -0.000.</p> <p> Hole diameter is 0.159 +0.007 -0.000.</p> <p> Hole diameter is 0.385 +0.008 -0.000.</p> <p> Hole diameter is 0.098 +0.008 -0.000.</p> <p> Hole diameter is 0.1895 +0.0025 -0.0000.</p> <p> Hole diameter is 0.1600 +0.0025 -0.0000.</p> <p> Hole diameter is 0.195 +0.007 -0.000.</p>				

Figure 22. Support, 74A313219, Fastener Index (Sheet 2)

26. **PITOT PROBE SUPPORT, 74A313110, REPLACEMENT.** See figure 23.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound
F49249E3-2	Platenut
MS20426AD3	Rivet, Solid

a. Make sure door is loaded correctly and secure (WP013 01).

b. Position former locators (detail 25, 110, 115 and 125) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

c. Insert 0.125 inch shim between formers and former locators (details 25, 110, 115 and 125) and C-clamp together at as many points as necessary to securely hold door assembly, detail A.

d. Rotate fixture and remove drill blanket (detail 15).

e. Remove fasteners holding 74A313110 support to door assembly. See figure 24 for fastener location.

f. Remove damaged 74A313110 support.

g. Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

h. Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.

i. Position 74A313110 support net to 74A313187 former, 74A313055 skin and 74A313040 angles.

j. Locate in X plane location by aligning chem mill of 74A313110 support with edge of 74A313055 skin cutout.

k. Secure in position by applying c-clamps.

l. Mate drill from structure to support and install temporary fasteners, see figure 24 for hole diameters.

m. Mate drill from skin to support, see figure 24 for hole diameters.

n. Loosen C-clamps and remove 74A313110 support.

o. Apply finish system (A1-F18AC-SRM-500, WP018 00).

p. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

3

q. Apply sealing compound per substeps below:

(1) Fay seal area between skin and support (A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 24 and (A1-F18AC-SRM-200, WP011 00).

r. Apply finish system (A1-F18AC-SRM-500, WP018 00).

s. Reinstall drill blanket (detail 15).

t. Position support locator (detail 16 left side or detail 17 right side) on drill blanket (detail 15) and secure by installing handknobs (detail 156), detail B.

u. At hole location 51 and 52 left side or 55 and 56 right side:

(1) Insert traveler bushing (detail 205) in drill bushing (detail 16C left side or 17C right side).

(2) Drill 0.195 +0.007 -0.000 diameter hole.

(3) Apply finish system (A1-F18AC-SRM-500, WP018 00).

(4) Install platenuts, see figure 24 and (A1-F18AC-SRM-200, WP004 05).

NOTE

When 74A313182 support is also replaced, hole locations 49, 50, 53 and 54 can be drilled at this time.

v. At hole location 49 and 50 left side or 53 and 54 right side:

(1) Insert traveler bushing (detail 205) in drill bushing (detail 16C left side or 17C right side).

(2) Drill 0.195 +0.007 -0.000 diameter hole.

(3) Apply finish system (A1-F18AC-SRM-500, WP018 00).

(4) Install F49249E3-2 platenut using MS20426AD3 rivets per (A1-F18AC-SRM-200, WP004 05).

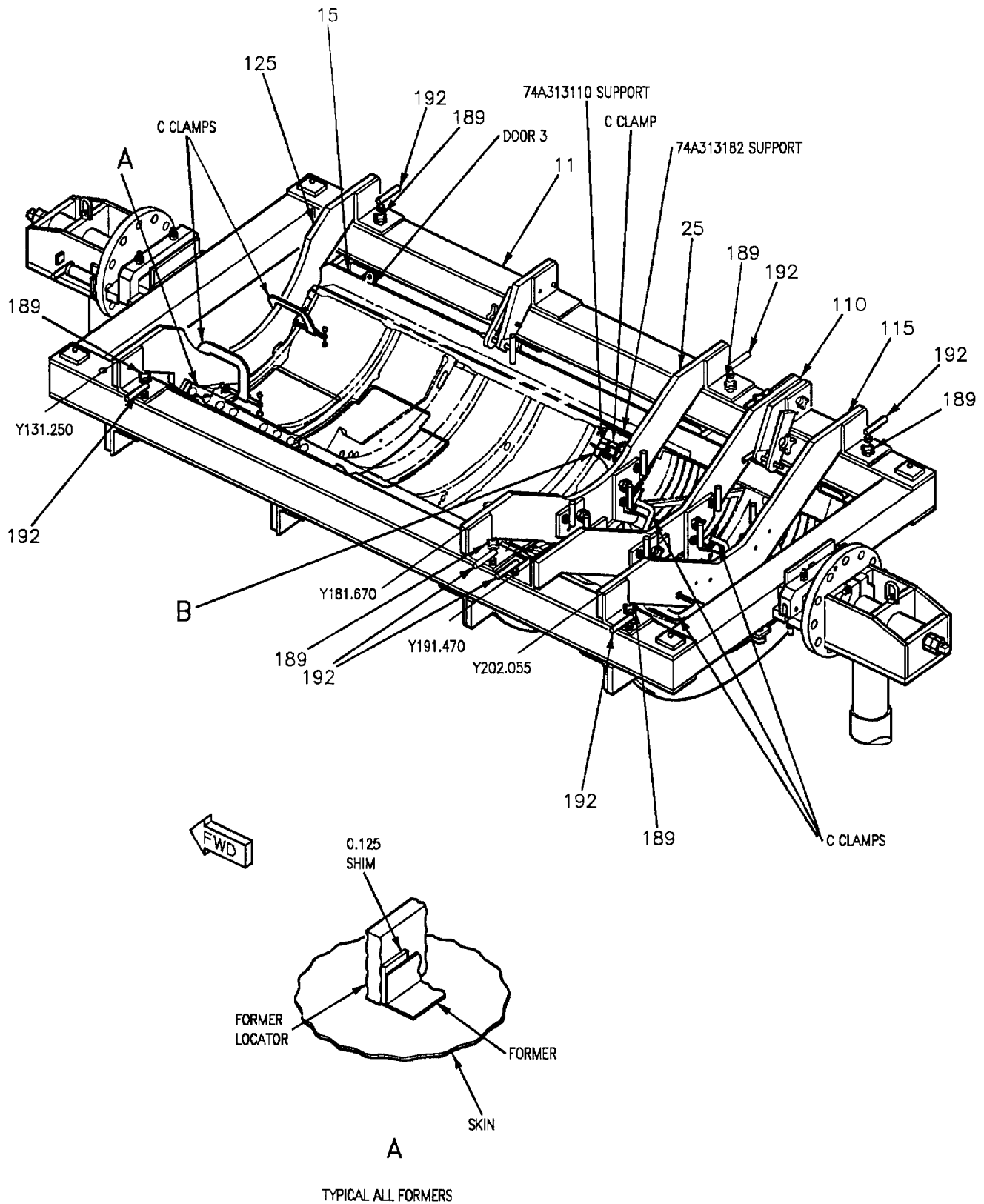


Figure 23. Replacement - 74A313110 Pitot Probe Support (Sheet 1)

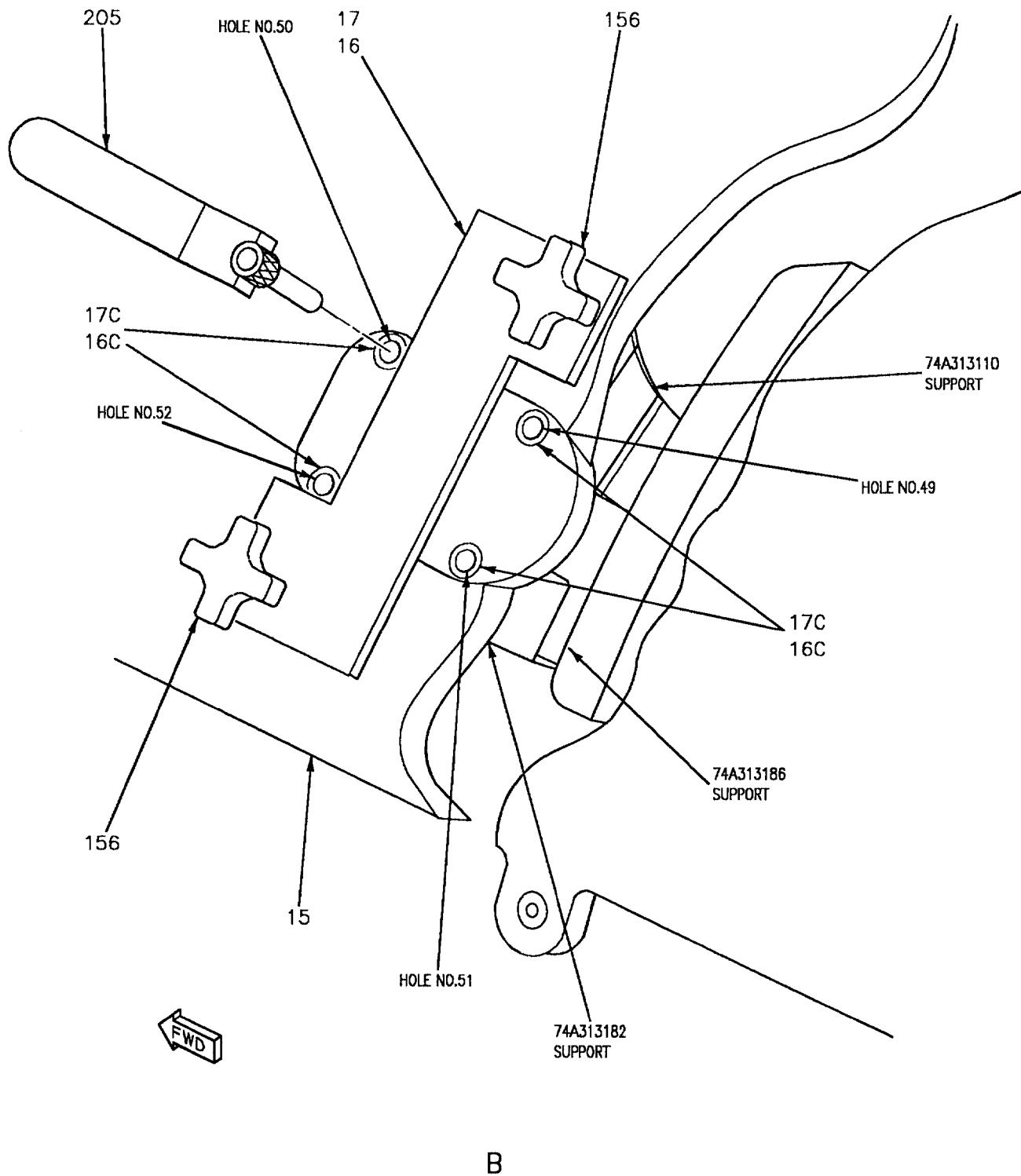


Figure 23. Replacement - 74A313110 Pitot Probe Support (Sheet 2)

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Supports door and checks for alignment and twist.
16	Support locator	Locates 74A313110 support for L/H side.
16C	Drill bushing	Guides traveler bushing (detail 205) L/H side.
17	Support locator	Locates 74A313110 support R/H side.
17C	Drill bushing	Guides traveler bushing (detail 205) R/H side.
25	Former locator	Locates former at Y179.795.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
125	Former locator	Locates former at Y131.375.
156	Handknob	Secures detail 16 or 17 to detail 15.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
205	Traveler bushing	Guides 0.195 diameter drill.

Figure 23. Replacement - 74A313110 Pitot Probe Support (Sheet 3)

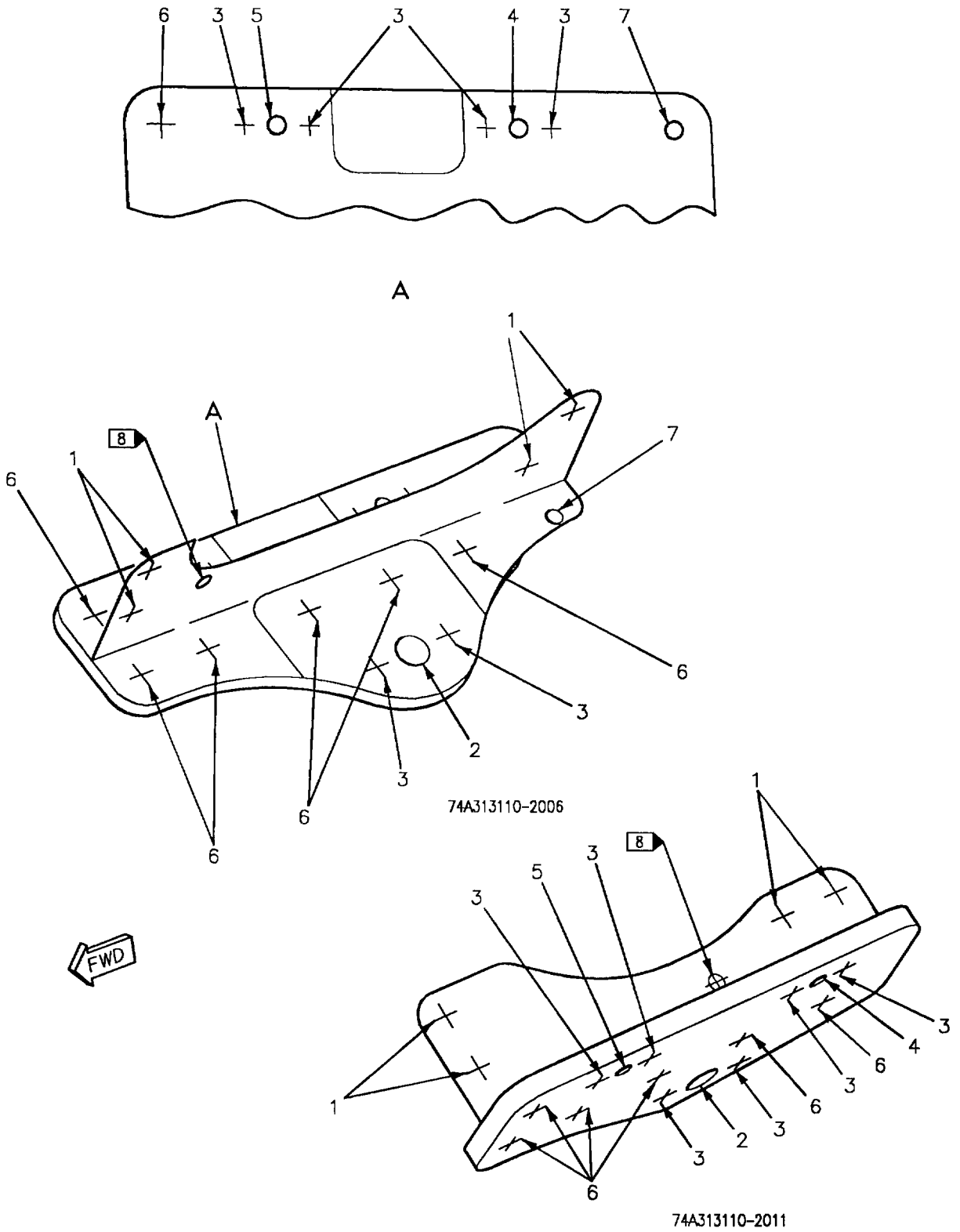


Figure 24. Pitot Probe Support, 74A313110, Fastener Index (Sheet 1)

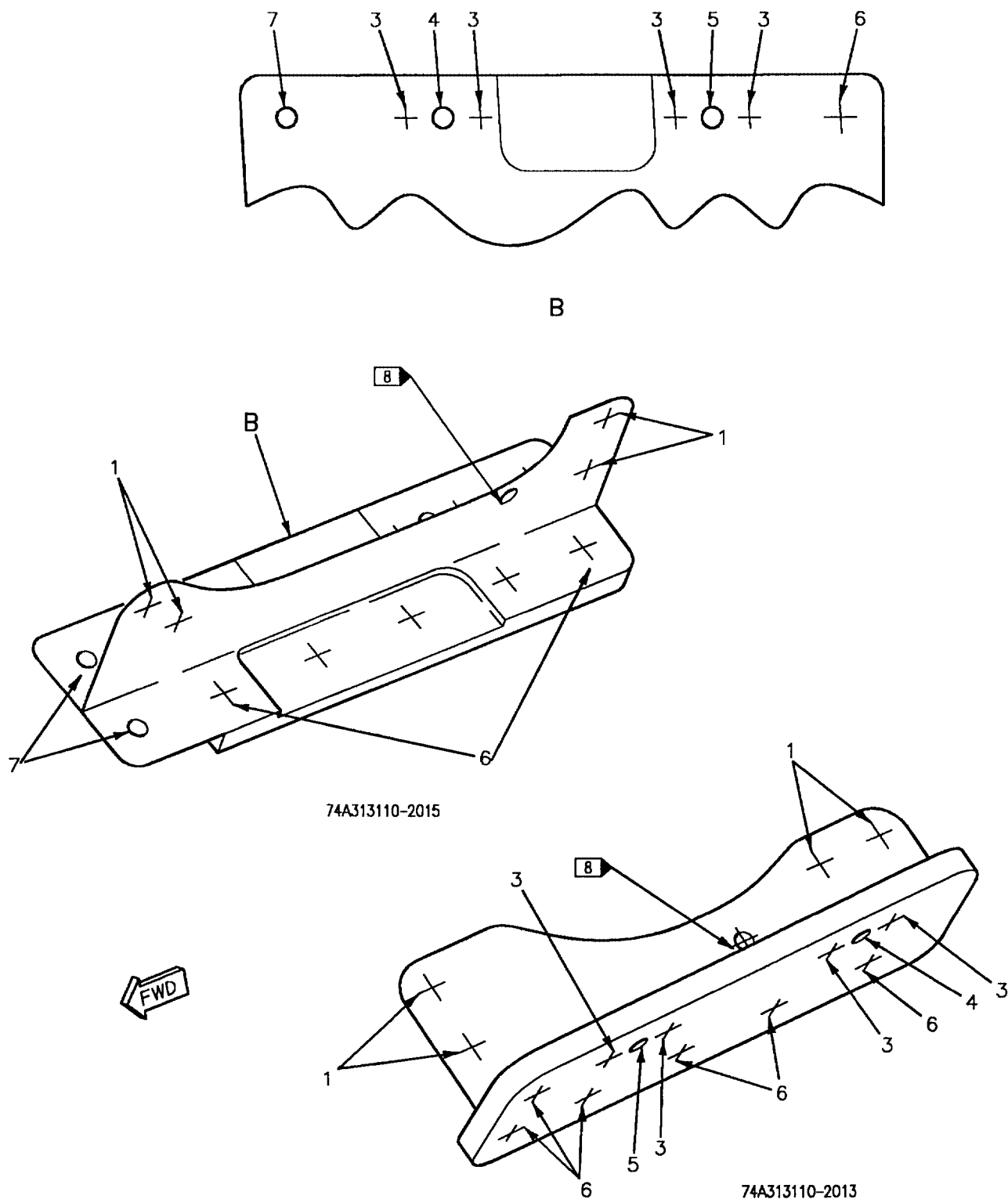


Figure 24. Pitot Probe Support, 74A313110, Fastener Index (Sheet 2)



















Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20470AD5
2			Receptacle	52956A4-1-126
3			Rivet	MS20426AD3
4			Platenut	F49249E3-1
5			Platenut	F49249E3-2
6			Rivet	BRFS5AD
7	 	 	Pin Collar Pin Collar	NAS2705V06 NAS1080AG06 NAS2705V05 NAS1080AG05
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.159 +0.007 -0.000.</p> <p> Hole diameter is 0.390 +0.006 -0.000.</p> <p> Hole diameter is 0.098 +0.008 -0.000.</p> <p> Hole diameter is 0.195 +0.007 -0.000.</p> <p> Hole diameter is 0.1895 +0.0025 -0.0000.</p> <p> Applicable on 74A313040 door assembly.</p> <p> Applicable on 74A313211 door assembly.</p> <p> Hole diameter is 0.191 +0.006 -0.000.</p>				

Figure 24. Pitot Probe Support, 74A313110, Fastener Index (Sheet 3)

27. BRACKET, 74A313059, INSPECTION AND REPLACEMENT. See figure 25.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

28. INSPECTION.

- Make sure door is loaded correctly and secure (WP013 01).
- Position former locator (detail 120) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
- Position bracket locator (detail 175) on former locator (detail 120) by inserting L-pin (detail 196) and secure by installing handknob (detail 193).
- Check alignment and twist of 74A313059 brackets by inserting 0.125 inch shim between bracket locator (detail 175) and 74A313059 brackets.
- Replace brackets if damaged or out of tolerance.

29. REPLACEMENT.

- Make sure door is loaded correctly and secure (WP013 01).
- Position former locators (detail 25, 110, 115, 120 and 125) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
- Insert 0.125 inch shim between formers and former locators (details 25, 110, 115, 120 and 125) and C-clamp together at as many points as necessary to securely hold door assembly, detail A.
- Rotate fixture and remove drill blanket (detail 15).
- Remove fasteners holding 74A313059 bracket to structure. See figure 26 for fastener location.

- Remove damaged bracket.



Sealing Compound, MIL-S-83430, Class A-1/2

3

- Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

- Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.

- Position bracket locator (detail 175) on former locator (detail 120) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193).

- Locate 74A313059 bracket net to 74A313055 skin.

- Locate 74A313059 bracket in X plane location by inserting 0.125 inch shims between bracket locator (detail 175) and 74A313059 brackets.

- Secure 74A313059 bracket in position using C-clamps.

- Mate drill from skin to bracket and install temporary fasteners. See figure 26 for hole diameters.

- Mate drill from structure to bracket, see figure 26 for hole diameters.

- Loosen C-clamps and remove 74A313059 bracket.

- Apply finish system (A1-F18AC-SRM-500, WP018 00).

- Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

3

- Apply sealing compound per substeps below:

- Fay seal area between skin and 74A313059 bracket (A1-F18AC-SRM-200, WP011 00).

- Wet install fasteners, see figure 26 and (A1-F18AC-SRM-200, WP011 00).

- Apply finish system (A1-F18AC-SRM-500, WP018 00).

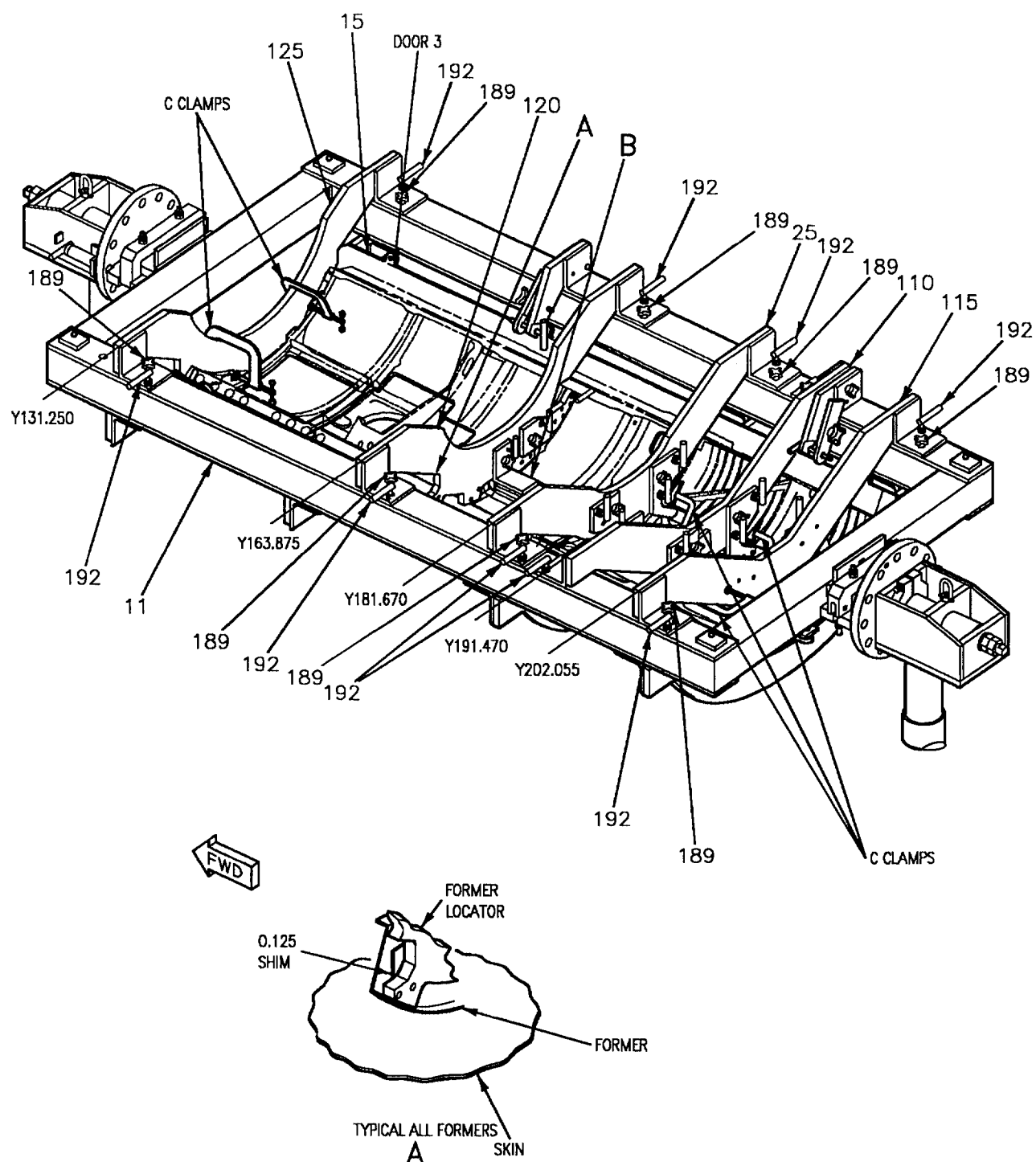


Figure 25. Inspection or Replacement - 74A313059 Bracket (Sheet 1)

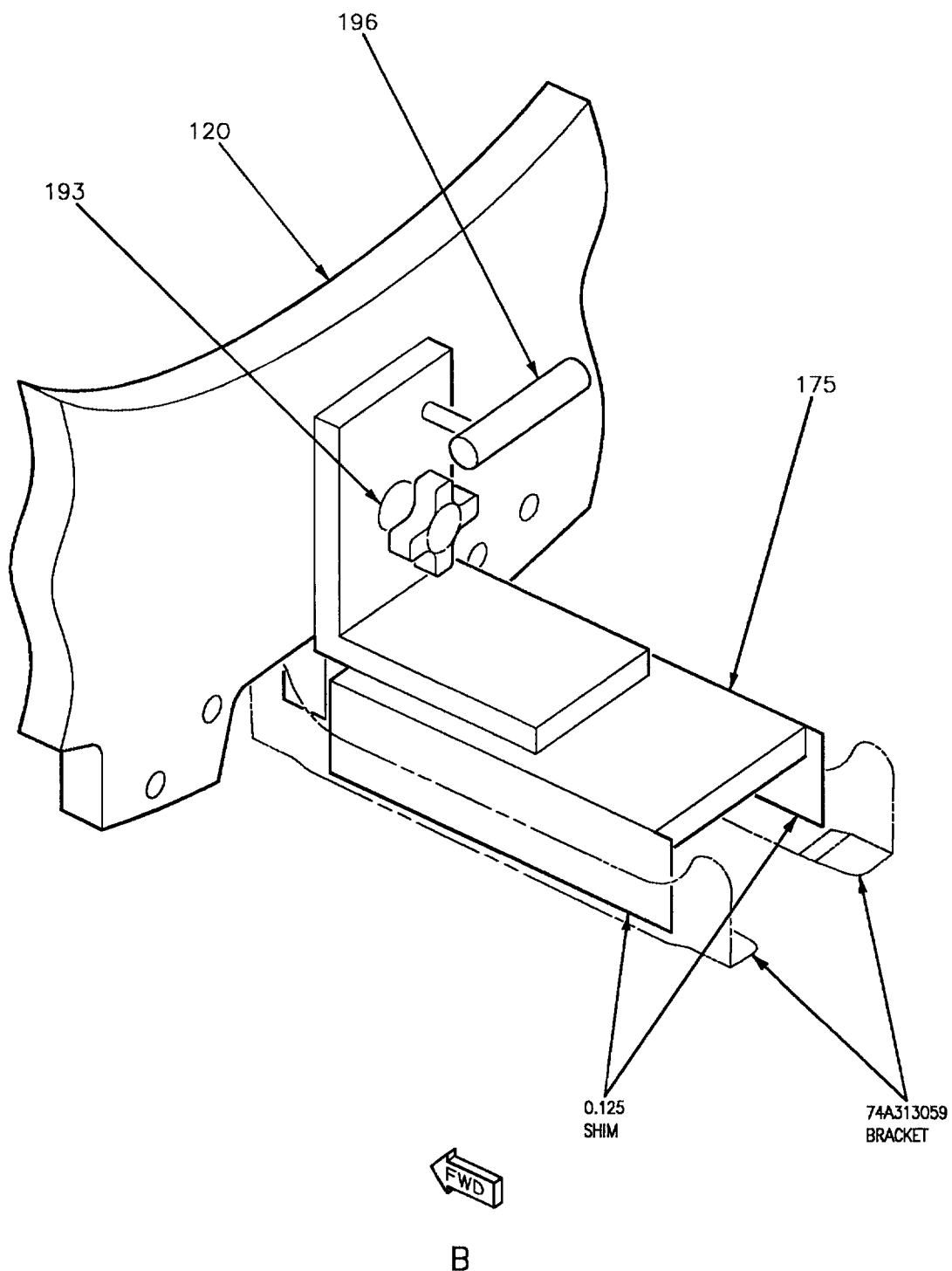
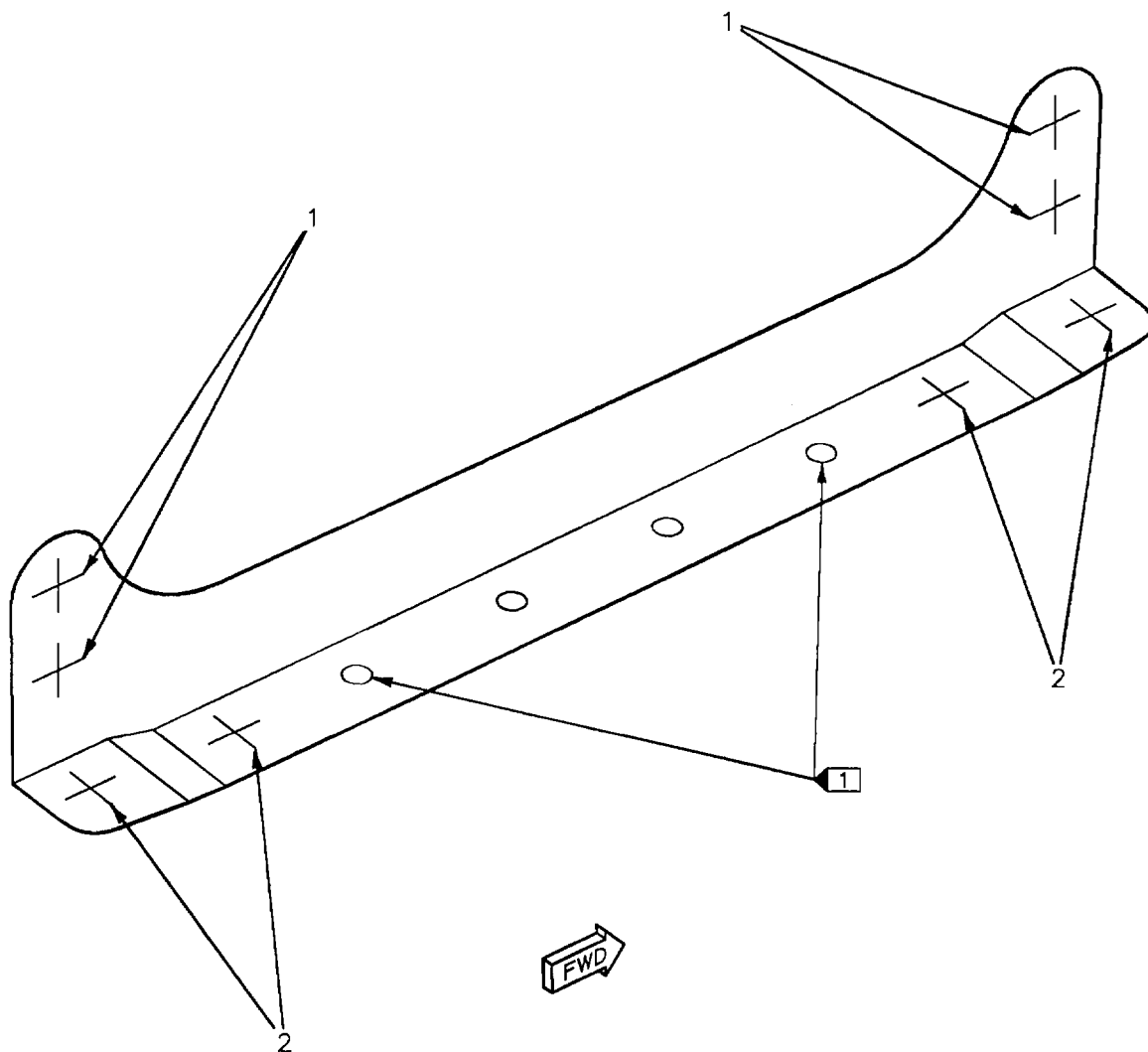


Figure 25. Inspection or Replacement - 74A313059 Bracket (Sheet 2)

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Supports door and checks for alignment and twist.
25	Former locator	Locates former at Y179.795.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
120	Former locator	Locates former at Y163.000.
125	Former locator	Locates former at Y131.375.
175	Bracket locator	Locates 74A313059 bracket.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
193	Handknob	Secures detail 175 to detail 120.
196	L-Pin	Locates detail 175 to detail 120.

Figure 25. Inspection or Replacement - 74A313059 Bracket (Sheet 3)



74A313059

18AC-SRM-221-(71-1)01-CATI

Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20470AD5
2			Rivet	BRFS5AD
LEGEND Hole diameter is 0.191 +0.006 -0.000. Hole diameter is 0.159 +0.007 -0.000.				

Figure 26. Bracket, 74A313059, Fastener Index

30. SILL, 74A313049, INSPECTION AND REPLACEMENT. See figure 27.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

31. INSPECTION.

- a. Make sure door is loaded correctly and secure (WP013 01).
- b. Position sill supports (details 127 and 128) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).
- c. Position sill locators (detail 151) on sill supports (detail 127 and 128) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193), typical four places, detail B.
- d. Check alignment and twist of 74A313049 sills by inserting 0.125 inch shim between sill locators (detail 151) and 74A313049 sills.
- e. Replace sills if damaged or out of tolerance.

32. REPLACEMENT.

- a. Make sure door is loaded correctly and secure (WP013 01).
- b. Position former locators (detail 25, 110, 115 and 125) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

c. Insert 0.125 inch shim between formers and former locators (detail 25, 110, 115 and 125) and C-clamp together at as many points as necessary to securely hold door assembly, detail A.

d. Rotate fixture and remove drill blanket (detail 15).

e. Remove fasteners holding sill to door assembly. See figure 28 for fastener location.

f. Remove damaged sill.

g. Clean all residual sealing compound from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

h. Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.

i. Position sill supports (details 127 and 128) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189).

j. Position sill locators (detail 151) on sill supports (detail 127 and 128) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193), typical four places, detail B.

k. Position new 74A313049 sill on 74A313048 and 74A313185 former.

l. Insert 0.125 inch shim between sill locators (detail 151) and 74A313049 sill.

m. Secure sill in position using C-clamps.

n. Mate drill from skin to sill, see figure 28 for hole diameters.

o. Mate drill from structure to sill, see figure 28 for hole diameters.

p. Loosen C-clamps and remove 74A313049 sill.

q. Apply finish system (A1-F18AC-SRM-500, WP018 00).

r. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

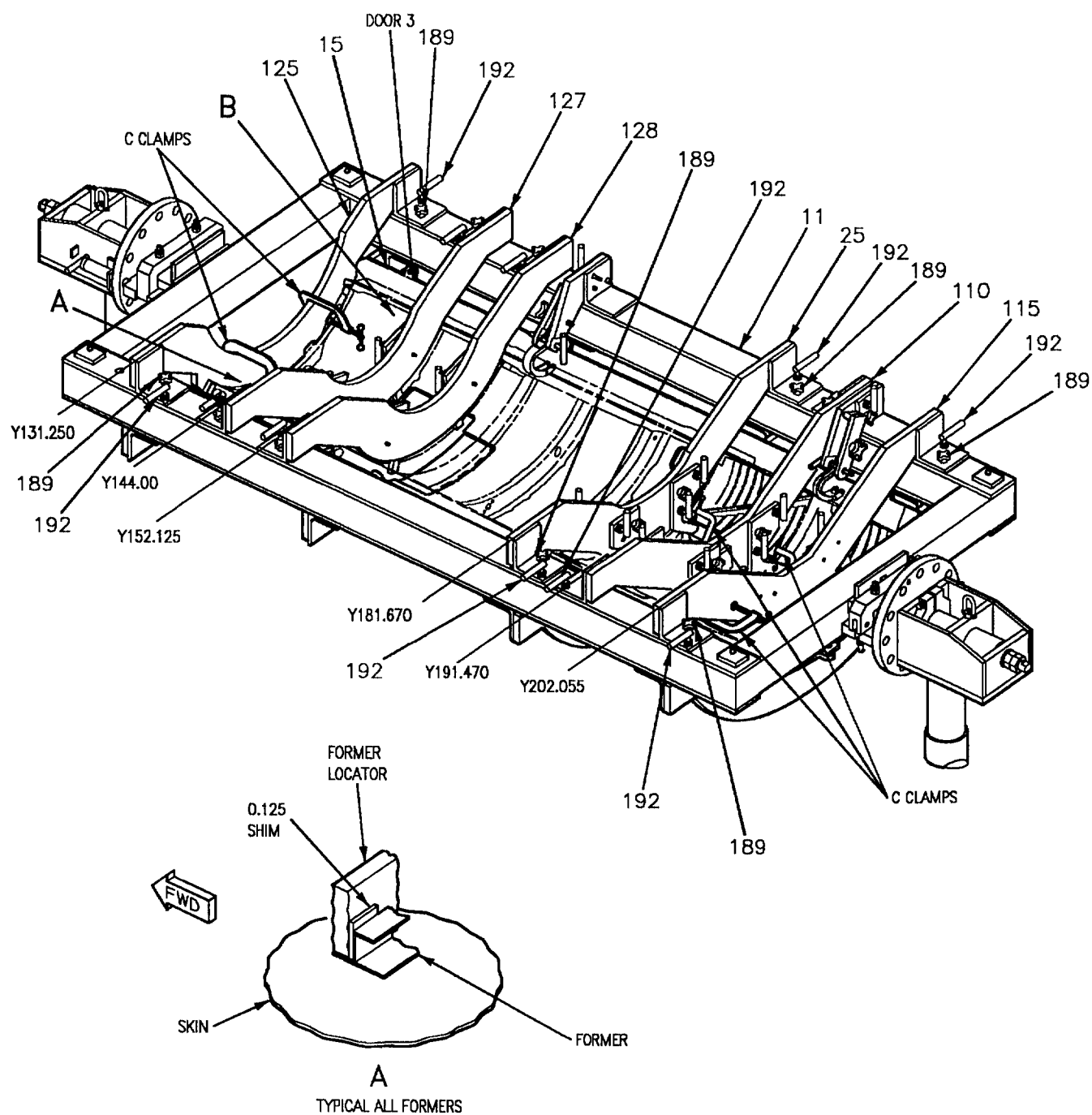
3

s. Apply sealing compound per substeps below:

(1) Fay seal area between skin and sill
(A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 28 and
(A1-F18AC SRM-200, WP011 00).

t. Apply finish system (A1-F18AC-SRM-500,
WP018 00).



18AC-SRM-221-(72-1)01-CATI

Figure 27. Inspection or Replacement - 74A313049 Sill (Sheet 1)

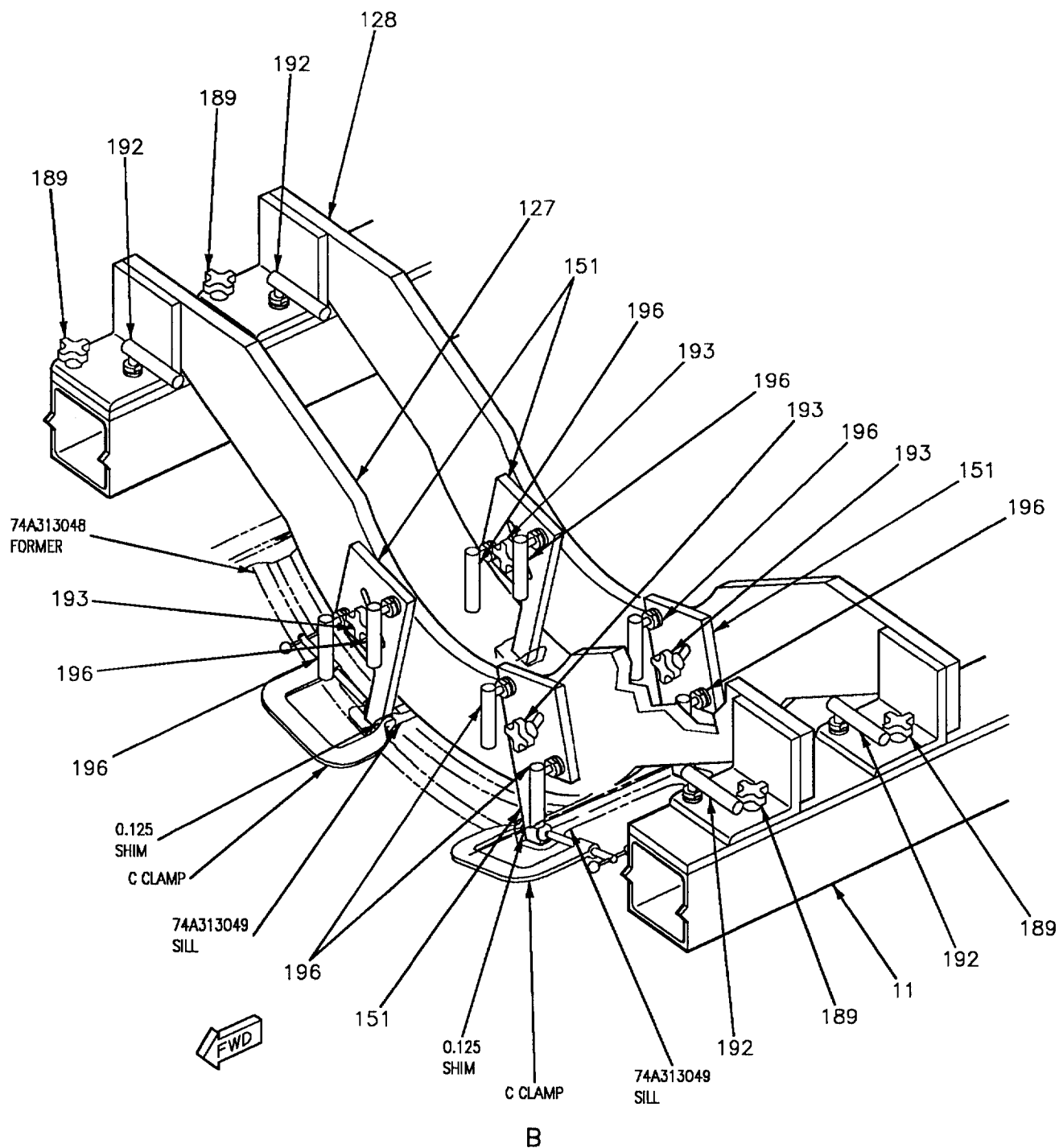
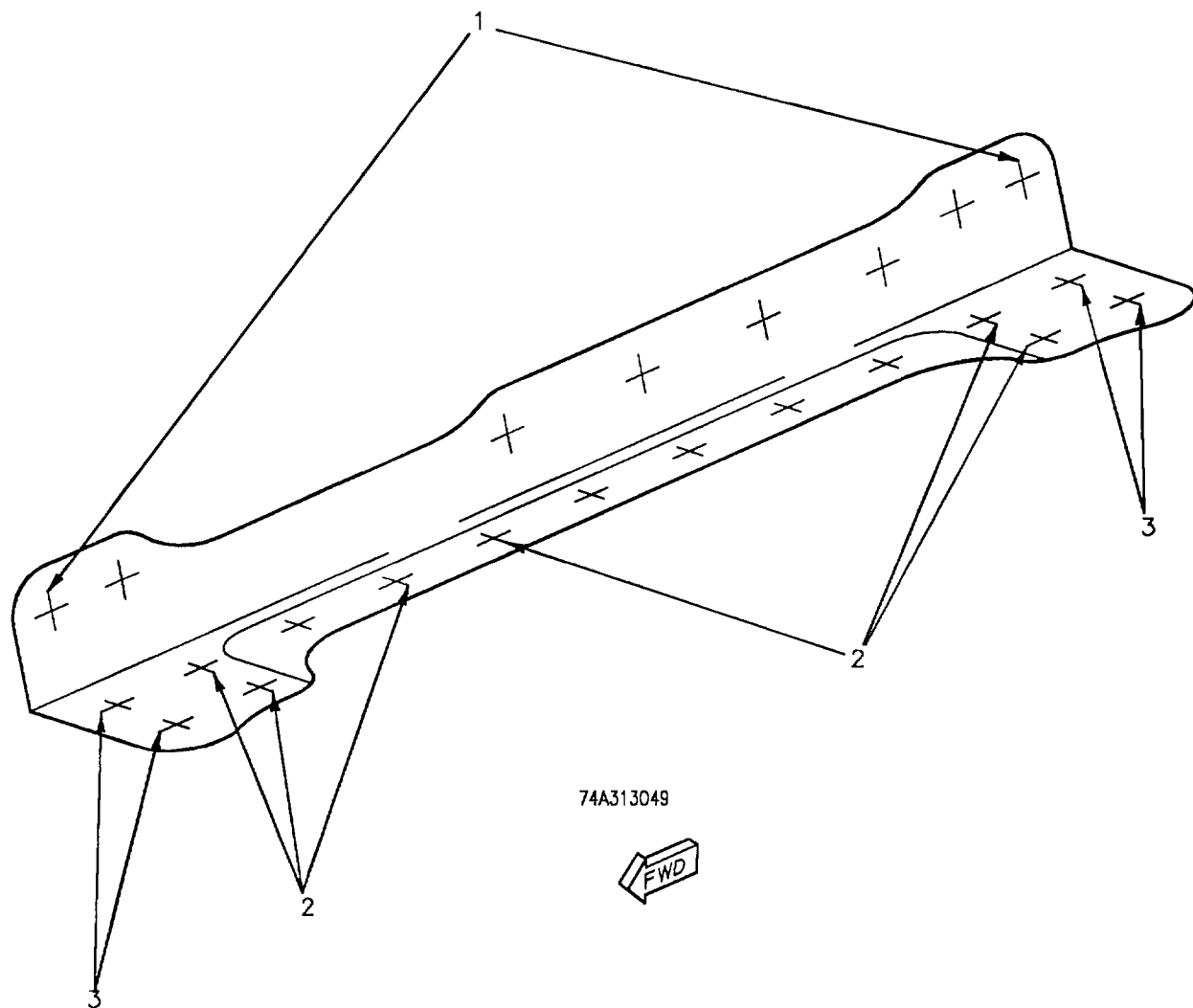


Figure 27. Inspection or Replacement - 74A313049 Sill (Sheet 2)

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Supports door and checks for alignment and twist.
25	Former locator	Locates former at Y179.795.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
125	Former locator	Locates former at Y131.375.
127	Sill support	Supports detail 151 at Y144.000.
128	Sill support	Supports detail 151 at Y152.125.
151	Sill locator	Locates 74A313049 sill.
189	Handknob	Secures former locators and sill supports to frame.
192	L-Pin	Locates former locators and sill supports to frame.
193	Handknob	Secures detail 151 to details 127 and 128.
196	L-Pin	Locates detail 151 to details 127 and 128.

Figure 27. Inspection or Replacement - 74A313049 Sill (Sheet 3)



18AC-SRM-221-(73-1)01-CATI






Idx No.	Eft		Nomenclature	Part Number
1			Rivet	MS20470AD5
2			Rivet	BRFS5AD
3			Rivet	BRFS6AD
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.159 +0.007 -0.000.</p> <p> Hole diameter is 0.191 +0.007 -0.000.</p>				

Figure 28. Sill, 74A313049, Fastener Index

33. **PLATE, 74A880647, REPLACE-
MENT.** See figure 29.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

a. Make sure door is loaded correctly and secure (WP013 01).

b. Remove fasteners holding plate to door assembly, see figure 30 for fastener location.

c. Remove damaged plate.

d. Clean all residual sealant from mating structure using plastic scraper.



Methyl Ethyl Ketone, TT-M-261

10

e. Clean mating surfaces with clean cheesecloth moistened with methyl ethyl ketone.

f. Position plate locator (detail 14) on drill blanket (detail 15) by inserting L-pins (detail 196) end secure by installing handknobs (detail 160).

g. Install pin (detail 177) in bushing (detail 180).

h. Locate new 74A330647 plate on pin (detail 177) and net to 74A313048 former and 74A313028 louver.

i. Mate drill from skin to plate, see figure 30 for hole diameters.

j. Remove 74A880647 plate.

k. Apply finish system (A1-F18AC-SRM-500, WP018 00).

l. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

3

m. Apply sealing compound per substeps below:

(1) Fay seal area between skin and plate (A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 30 and (A1-F18AC-SRM-200, WP011 00).

n. Apply finish system (A1-F18AC-SRM-500, WP018 00).

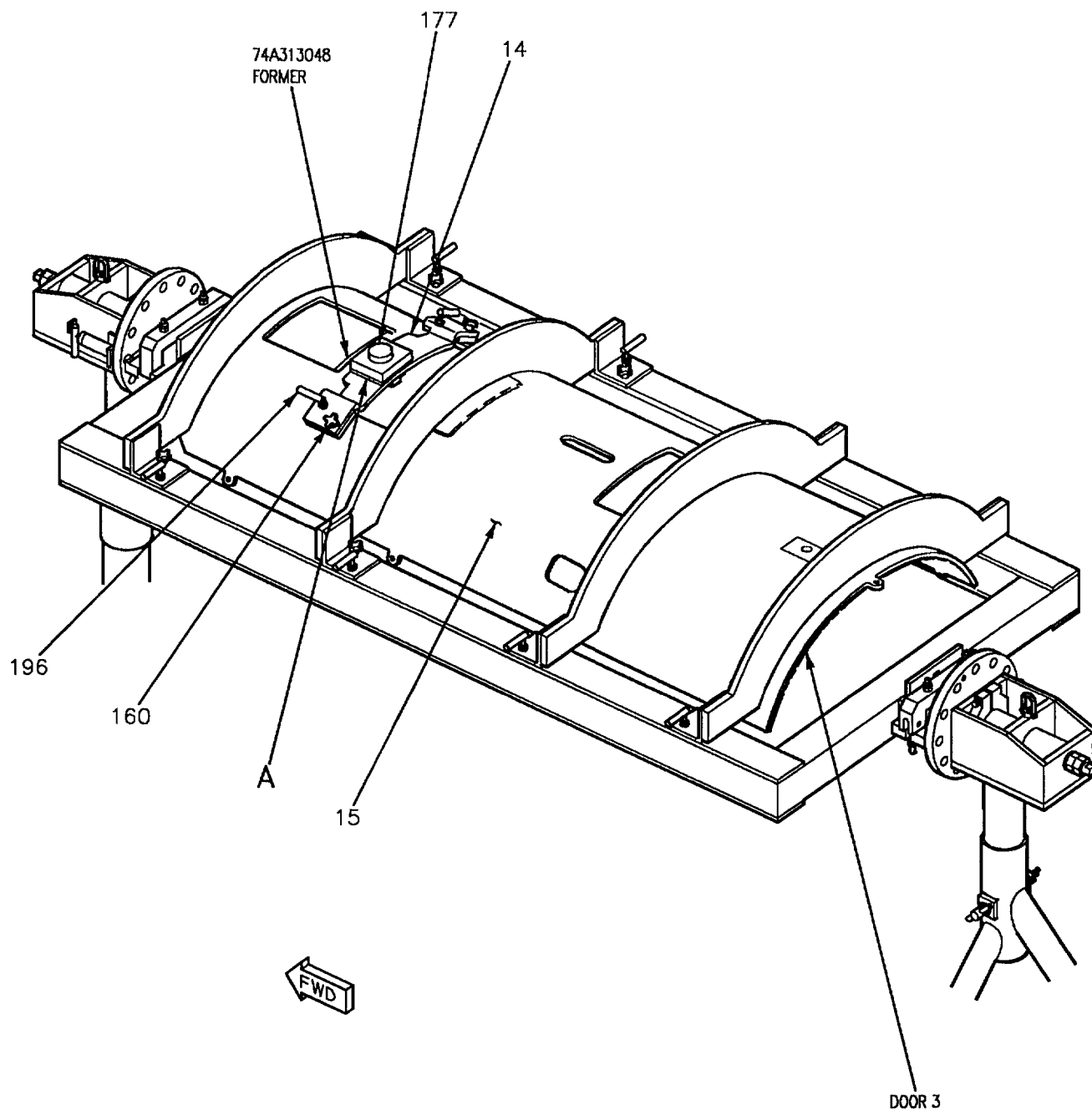


Figure 29. Replacement - 74A880647 Plate (Sheet 1)

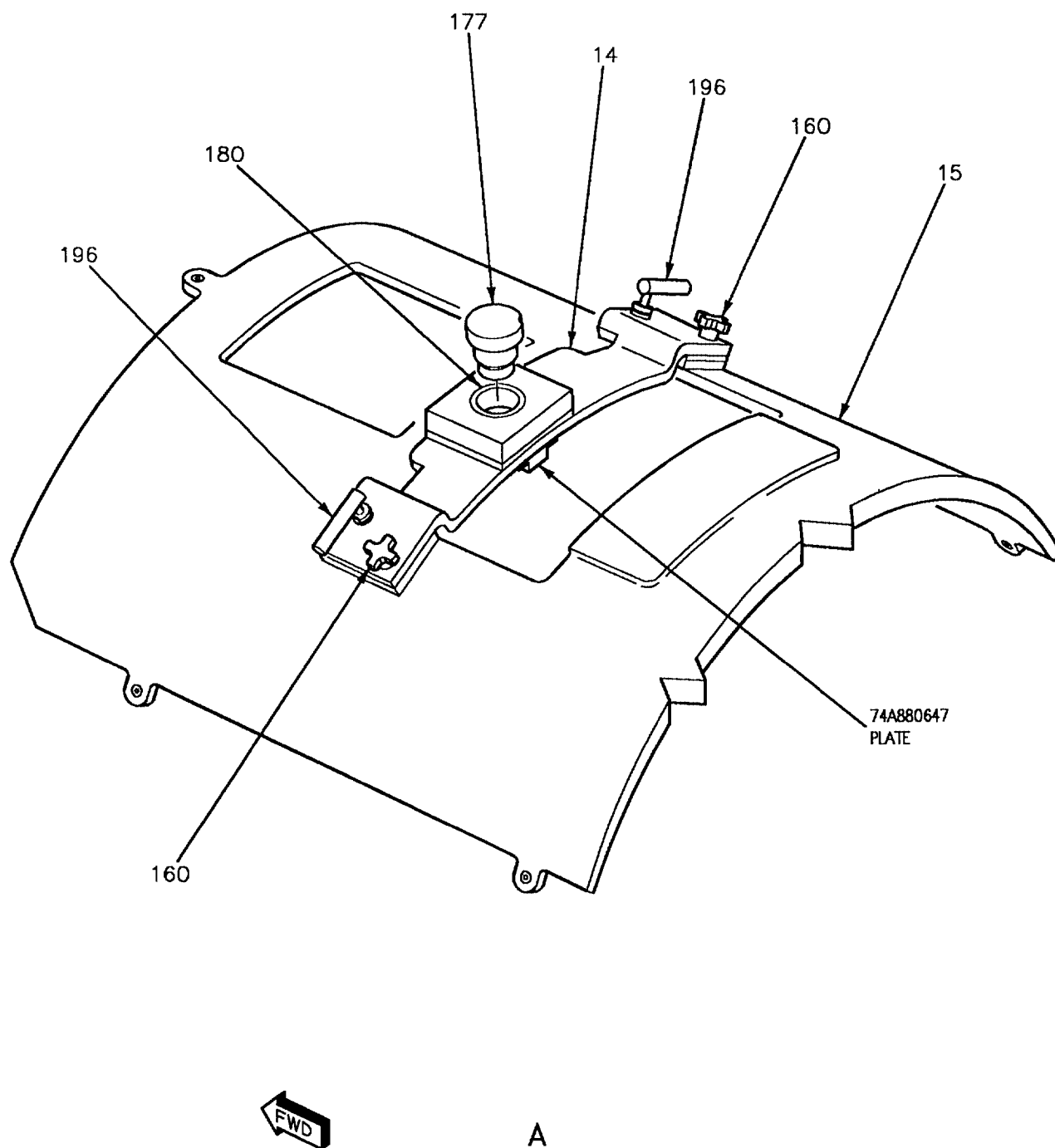
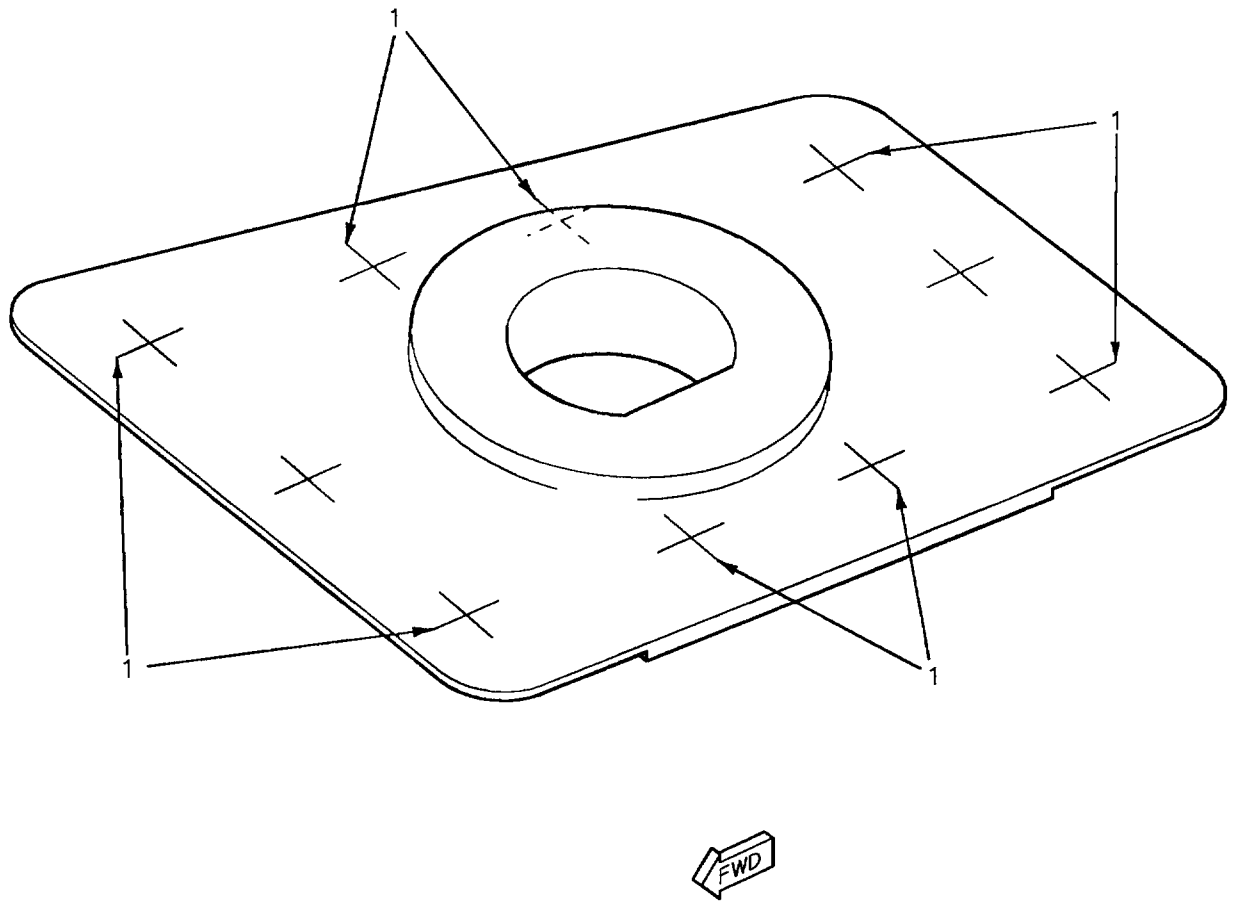


Figure 29. Replacement - 74A880647 Plate (Sheet 2)

Detail No.	Name	Function
14	Plate locator	Supports details 177 and 180.
15	Drill blanket	Supports door and checks for alignment and twist.
160	Handknob	Secures detail 14 on detail 15.
177	Pin	Locates 74A880647 plate.
180	Bushing	Guides detail 177.
196	L-Pin	Locates detail 14 on detail 15.

Figure 29. Replacement - 74A880647 Plate (Sheet 3)



18AC-SRM-221-(75-1)01-CATI



Idx No.	Eft		Nomenclature	Part Number
1			Rivet	BRFS5AD
LEGEND				
 Hole diameter is 0.159 +0.007 -0.000.				

Figure 30. Plate, 74A880647, Fastener Index

34. **SKIN, 74A313055, REPLACE-MENT.** See figure 31.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE174313211-1	Maintenance Fixture - Gun Bay Door
RE474000002-1	Maintenance Stands
RE274313211-1	Repair Kit - Gun Bay Door

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-M-261	Methyl Ethyl Ketone
MIL-S-83430, CLASS A-1/2	Sealing Compound

a. Install drill blanket (detail 15), (WP013 01).

b. Position forward and aft skins on pads (detail 214).

c. Position skin hole locator (detail 21) on forward and aft skins by inserting L-pins (detail 198) at forward and aft ends of skin hole locator (detail 21) into drill blanket (detail 15).

d. Locate forward and aft skins to drill blanket (detail 15) by inserting L-pin (detail 198) at aft end of forward skin and L-pin (detail 202) at forward end of aft skin.

e. Locate skin hole locator (detail 21) to drill blanket (detail 15) by inserting L-pins (detail 198) at hole locations 1 through 8.

f. Insert 0.125 inch shims, six places, between skins and drill blanket (detail 15), detail A.

g. Secure skin hole locator (detail 21) to drill blanket (detail 15) using C-clamps at the six shim locations, detail A.

h. Rotate fixture 180 degrees.

i. Scribe outer skin trim at periphery of drill blanket (detail 15) using scribe (detail 101), detail B.

NOTE

Step j applies to the 74A313211 door assembly only.

j. Scribe skin trim for ALQ126 antenna, 74A313217 louvers, 74A313219 supports, blade antenna, pitot tubes and 74A315124 louver using scribe (detail 101) at openings marked on drill blanket (detail 15).

NOTE

Steps k and l applies to the 74A313040 door assembly only.

k. Position scribe locator (detail 26) on drill blanket (detail 15) by inserting L-pins (detail 196) and secure by installing handknobs (detail 193), detail B.

l. Scribe skin trim for ALQ126 antenna, 74A313028 louver, blade antenna and pitot tubes using scribe (detail 101) at openings marked on drill blanket (detail 15).

NOTE

Aft edge of forward skin and forward edge of aft skin are scribed after assembly of skins to structure.

m. Trim all scribed areas on skins.

n. Rotate fixture 180 degrees.

o. Locate door assembly with old skins removed (WP013 01, step h).

p. Rotate fixture 180 degrees.

q. At hole locations 97 through 112, 122 through 124, and 134 through 148, detail C:

(1) Insert traveler bushing (detail 203) in drill bushing (detail 21D).

NOTE

Installation of step pins (detail 219) into newly drilled holes, maintains door alignment.

(2) Drill 0.385 +0.008 -0.000 diameter holes.

r. Remove skin hole locator (detail 21).

s. Position former locators (25, 110, 115 and 125) on frame (detail 11) by inserting L-pins (detail 192) and secure by installing handknobs (detail 189), detail D.

t. Insert L-pins (detail 198) through former locators (details 25, 115 and 125) into skins and drill blanket (detail 15), detail E.

u. Insert L-pin (detail 202) through former locator (detail 110) into skin and drill blanket (detail 15), detail E.

v. Insert 0.125 inch shim between formers and former locators (details 25, 110, 115 and 125) and C-clamp together at as many points as necessary to securely hold door assembly, detail F.

w. At hole locations 9 through 12, detail G:

(1) Insert traveler bushing (detail 203) in drill bushing (detail 15C).

(2) Drill 0.385 +0.008 -0.000 diameter holes.

NOTE

Step x applies to the 74A313211 door assembly only.

x. At hole locations 15 through 20, detail G:

(1) Insert traveler bushing (detail 203) in drill bushing (detail 15C).

(2) Drill 0.385 +0.008 -0.000 diameter holes.

y. At hole locations 13, 14 and 21 through 28, detail G:

(1) Insert traveler bushing (detail 124) in drill bushing (detail 15E).

(2) Drill 0.191 +0.007 -0.000 diameter pilot holes.

z. At hole locations 181 through 184, detail B:

(1) Position skin hole locator (detail 188) on drill blanket (detail 15) by installing handknob (detail 107).

(2) Drill 0.250 diameter pilot holes through drill bushing (detail 183).

(3) Remove skin hole locator (detail 188).

(4) Bore 0.860 +0.010 -0.000 diameter holes using RE274313211-1 repair kit.

aa. Rotate fixture and remove drill blanket (detail 15).

ab. Mate drill from structure to skin, see figure 32 for hole diameters.

ac. Remove door assembly and apply finish system (A1-F18AC-SRM-500, WP018 00).



Methyl Ethyl Ketone, TT-M-261

10

ad. Clean area receiving sealing compound with cheesecloth moistened with methyl ethyl ketone.



Sealing Compound, MIL-S-83430, Class A-1/2

3

ae. Apply sealing compound per substeps below:

(1) Fay seal area between skin and structure (A1-F18AC-SRM-200, WP011 00).

(2) Wet install fasteners, see figure 32 and (A1-F18AC-SRM-200, WP011 00).

af. Rotate fixture and position drill blanket (detail 19) with pads (detail 162 and 166) resting on 74A313210 louvers or 74A313204 louver frames, detail H.

ag. Turn adjustment screws (detail 167) until drill blanket (detail 19) is resting on 74A313188 and 74A313189 formers, detail H.

ah. Locate drill blanket (detail 19) using existing holes in 74A313188 and 74A313189 formers.

ai. C-clamp drill blanket (detail 19) to door assembly.

aj. Use scribe (detail 101) to scribe skin trim for aft edge of forward skin and forward edge of aft skin using forward and aft edges of drill blanket (detail 19) as a guide, detail H.

ak. Trim scribed areas.

al. At hole locations 97 through 148, detail H:

(1) Insert locator pin (detail 207) through skin holes.

(2) Locate 74A313040 and 74A313211 retainers and leafs on locating pin.

(3) Install 74A313040 and 74A313211 retainers and leafs (WP013 00).

am. Apply finish system (A1-F18AC-SRM-500, WP018 00).

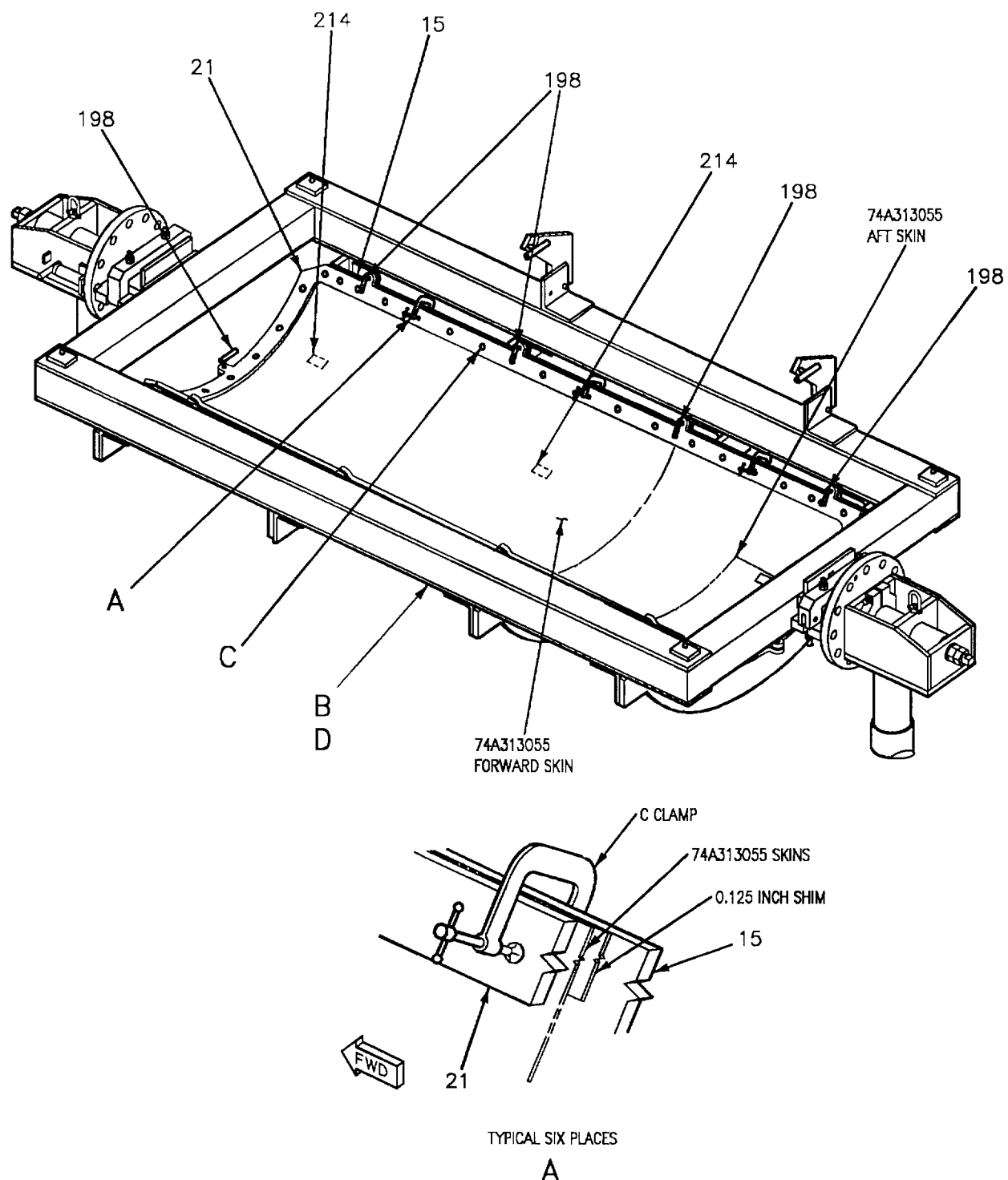


Figure 31. Replacement - 74A313055 Skins (Sheet 1)

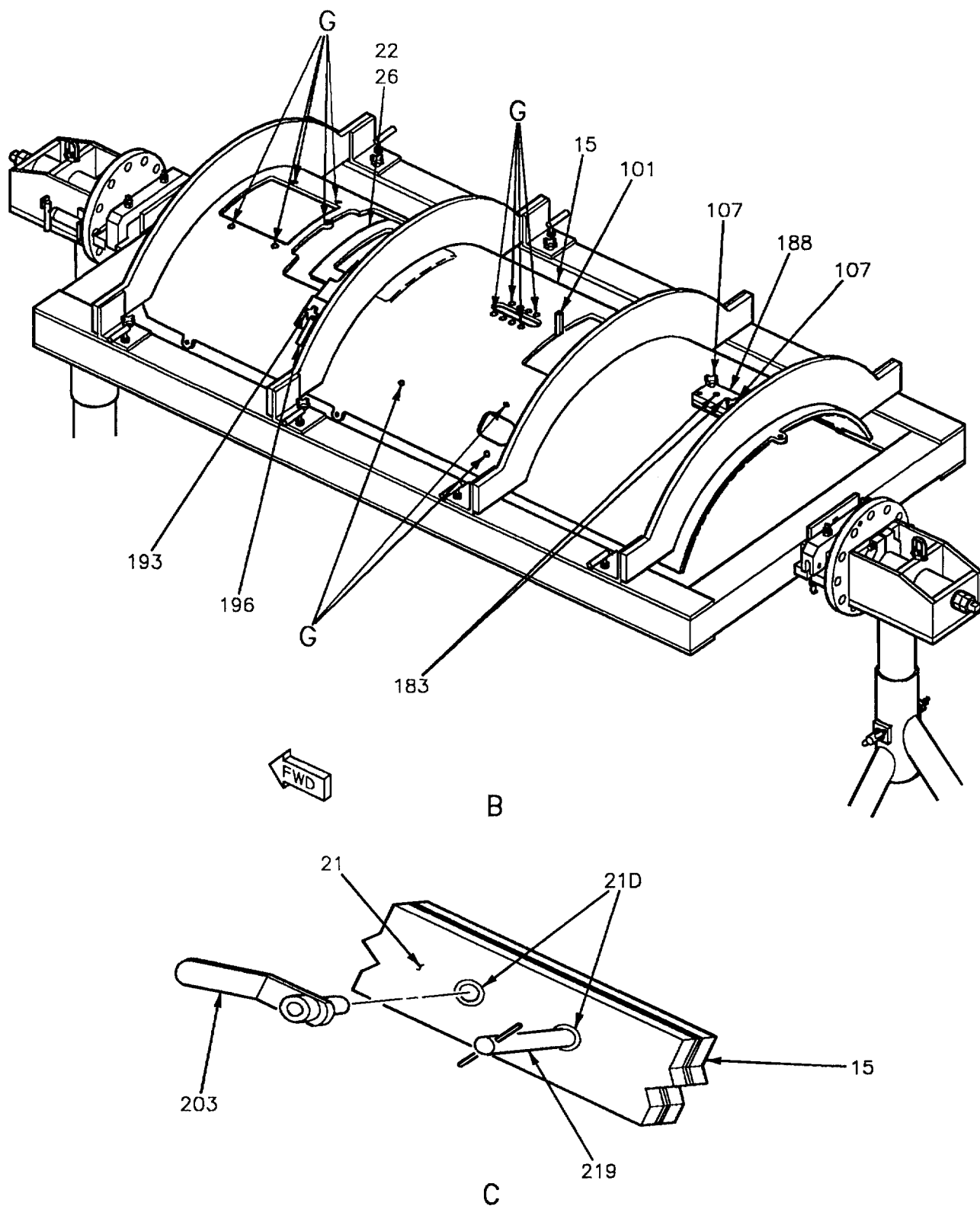


Figure 31. Replacement - 74A313055 Skins (Sheet 2)

18AC-SRM-221-(76-2)01-CATI

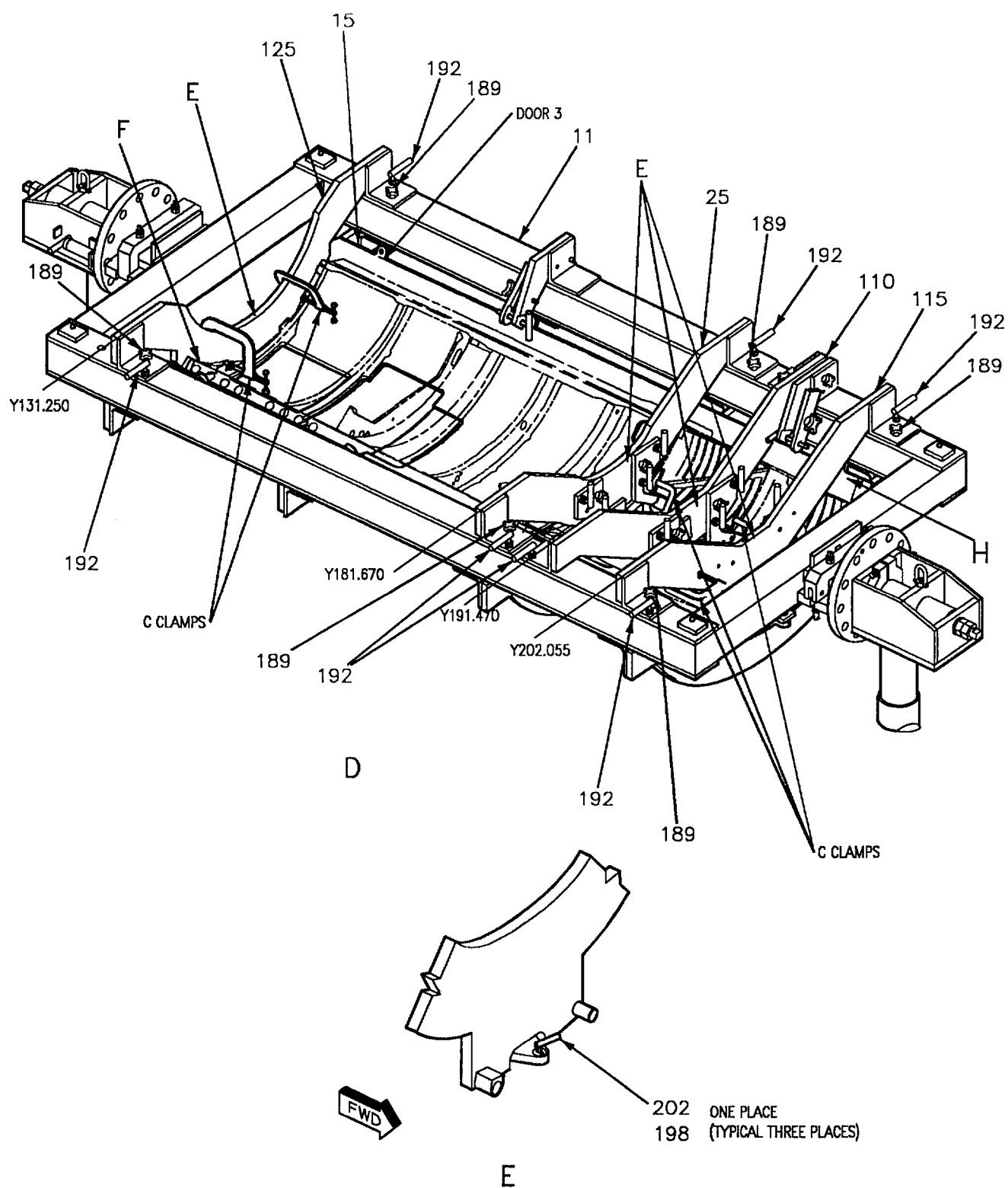


Figure 31. Replacement - 74A313055 Skins (Sheet 3)

18AC-SRM-221-(76-3)01-CAT1

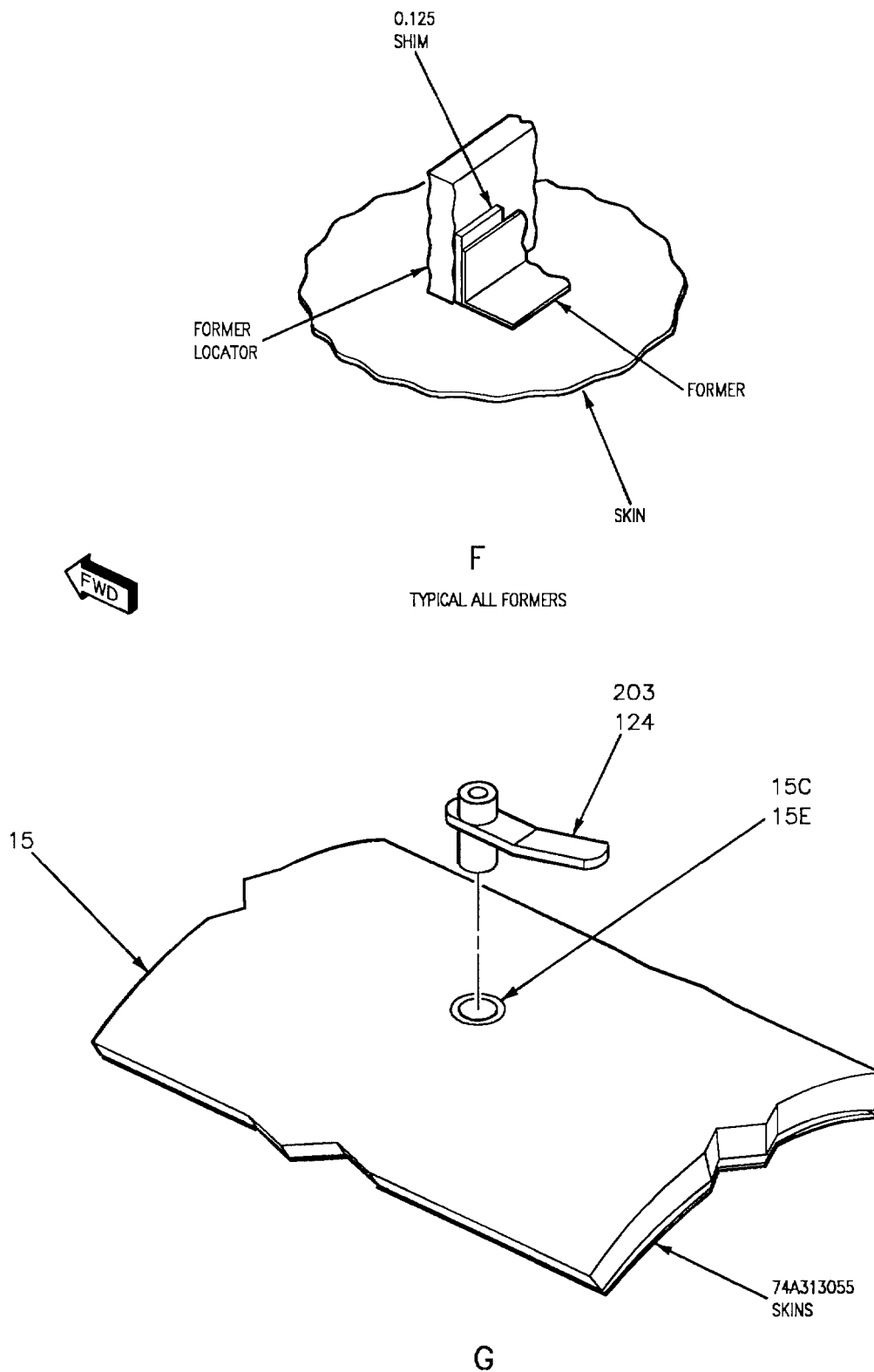
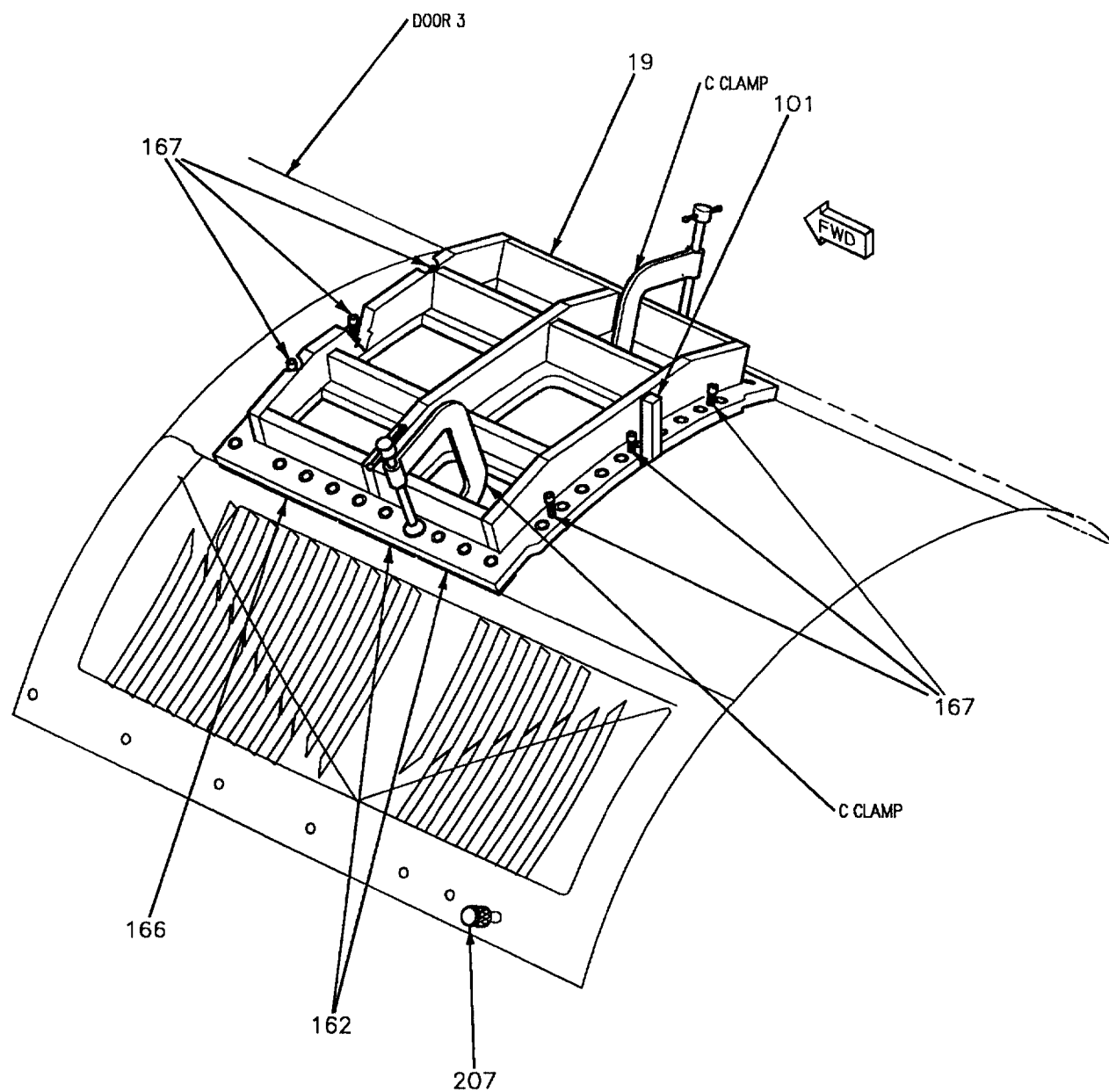


Figure 31. Replacement - 74A313055 Skins (Sheet 4)



H

Figure 31. Replacement - 74A313055 Skins (Sheet 5)

Detail No.	Name	Function
11	Frame	Main support for all details.
15	Drill blanket	Provides hole and trim location for 74A313055 skin.
15C	Drill bushing	Guides traveler bushing (detail 203).
15E	Drill bushing	Guides traveler bushing (detail 124).
19	Drill blanket	Provides trim location for 74A313055 skin.
21	Skin hole locator	Locates hole numbers 97 through 148.
21D	Drill bushing	Guides traveler bushing (detail 203).
25	Former locator	Locates former at Y179.600.
26	Scribe locator	Provides trim location on 74A313040 door assembly.
101	Scriber	Provide trim line on 74A313055 skins.
107	Handknob	Secures detail 188 to detail 15.
110	Former locator	Locates former at Y192.720.
115	Former locator	Locates former at Y202.055.
124	Traveler bushing	Guides 0.191 diameter drill.
125	Former locator	Locates former at Y131.375.
162	Pad	Provides resting surface for detail 19.
166	Pad	Provides resting surface for detail 19.
167	Adjustment screw	Adjust height of detail 19 on former.
183	Drill bushing	Guides 0.250 diameter drill.
188	Skin hole locator	Locates hole numbers 181 through 184.
189	Handknob	Secures former locator to frame.
192	L-Pin	Locates former locator to frame.
193	Handknob	Secures detail 26 to detail 15.
196	L-pin	Locates detail 26 to detail 15.
198	L-Pin	Locates detail 21 and skin to detail 15.

Figure 31. Replacement - 74A313055 Skins (Sheet 6)

Detail No.	Name	Function
202	L-Pin	Locates 74A313055 skin to detail 15.
203	Traveler bushing	Guides 0.385 diameter drill.
207	Locator pin	Locates 74A313040 and 74A313211 retainers and leafs.
214	Pads	Provides rest for 74A313055 skins.
219	Step pin	Maintains alignment in 74A313055 skins while drilling.

Figure 31. Replacement - 74A313055 Skins (Sheet 7)

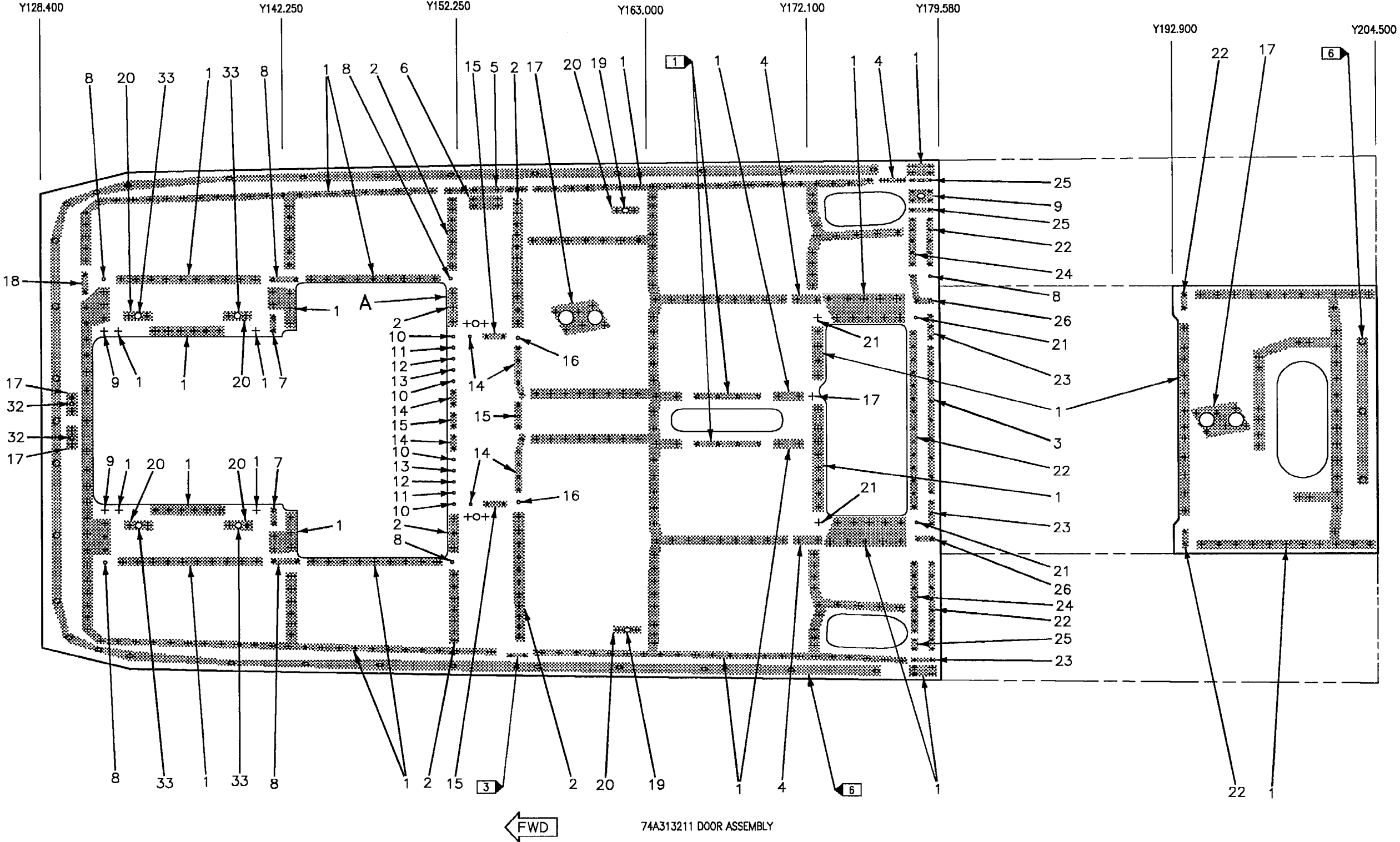


Figure 32.

Figure 32. Skin, 74A313055, Fastener Index (Sheet 1)

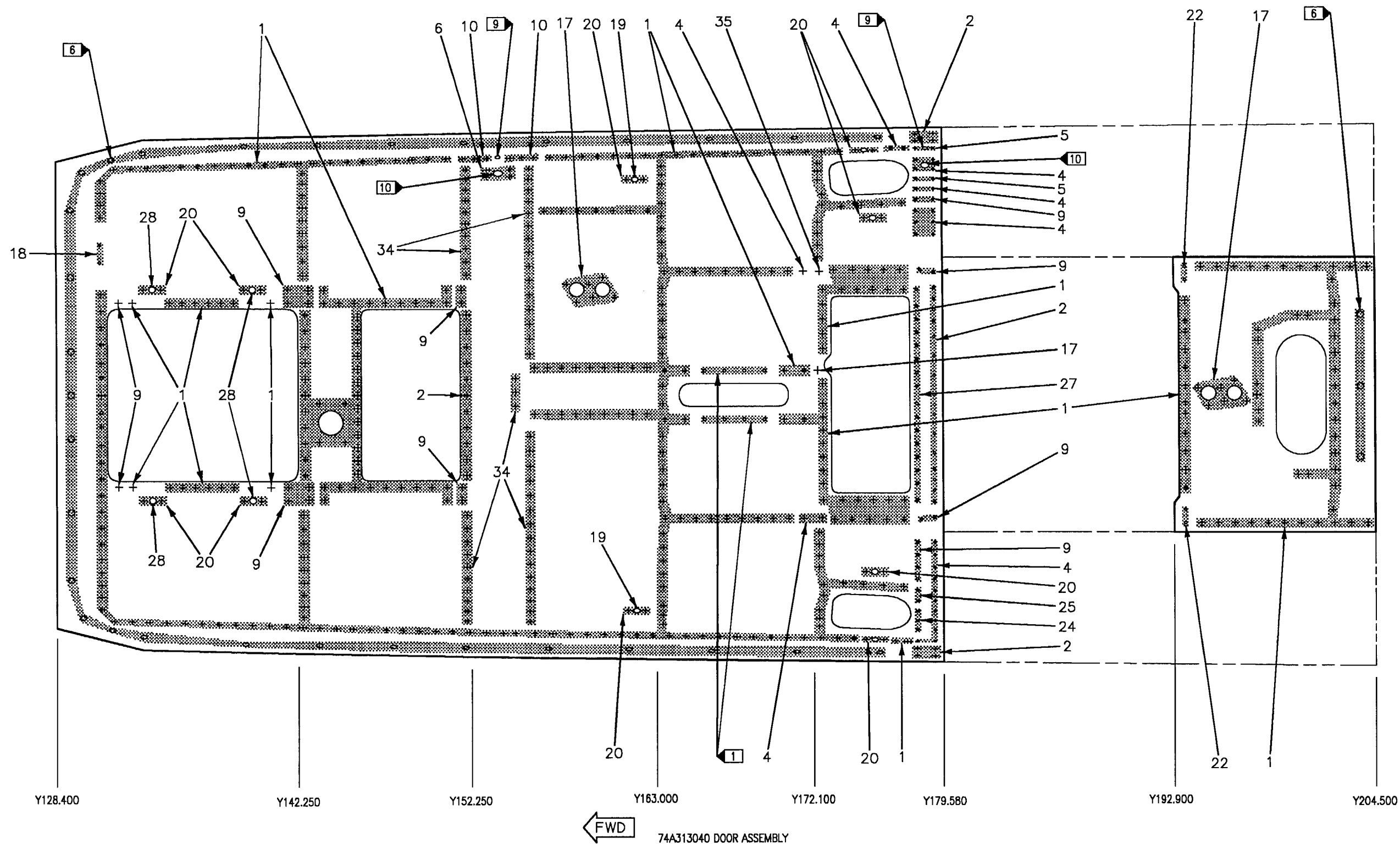
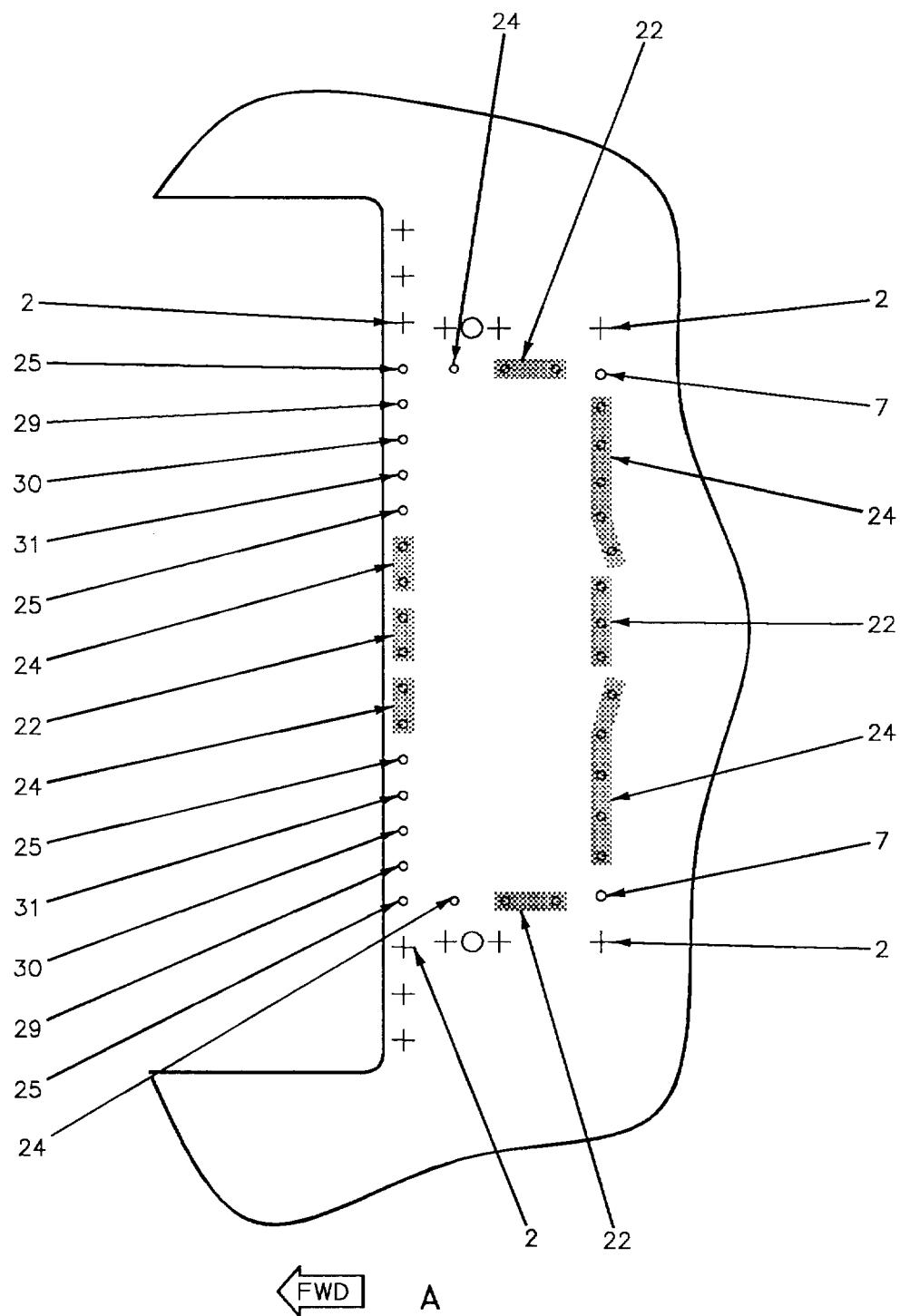


Figure 32.

Figure 32. Skin, 74A313055, Fastener Index (Sheet 2)



161520 THRU 161736

Figure 32. Skin, 74A313055, Fastener Index (Sheet 3)




































Idx No.	Eft		Nomenclature	Part Number
1			Rivet	BRFS5AD
2			Rivet	BRFS5T6
3			Rivet	BRFS5T3
4			Rivet	BRFS5T8
5			Rivet	BRFS5T10
6			Rivet	BRFS5T12
7			Pin Collar	2706MU-4 NAS1080AG06
8			Pin Collar	NAS2706V04 NAS1080AG06
9			Rivet	BRFS6AD
10			Pin Collar	HLT311TA5-6 SW1000-5M
11			Pin Collar	HLT311TA5-8 SW1000-5M
12			Pin Collar	HLT311TA5-9 SW1000-5M
13			Pin Collar	HLT311TA5-7 SW1000-5M
14			Pin Collar	HLT311TA5-5 SW1000-5M
15			Pin Collar	HLT311TA5-4 SW1000-5M
16			Pin Collar	HLT51TB-6-4 SW1000-6M
17			Rivet	MS20426AD3
18			Pin Collar	NAS2105V04 NAS1080-05
19			Receptacle	52956A4-1-056
20			Rivet	BRFS4AD

Figure 32. Skin, 74A313055, Fastener Index (Sheet 4)

Idx No.	Eft		Nomenclature	Part Number
21			Pin Collar	SLS100CT-EU5-4 NAS1080UG05
22			Pin Collar	NAS2705V04 NAS1080AG05
23			Pin Collar	NAS2705V03 NAS1080AG05
24			Pin Collar	NAS2705V05 NAS1080AG05
25			Pin Collar	NAS2705V06 NAS1080AG05
26			Pin Collar	NAS2706V05 NAS1080AG06
27			Rivet	BRFS5T
28			Receptacle	LW 1696-4-1-119
29			Pin Collar	NAS2705V08 NAS1080AG05
30			Pin Collar	NAS2705V09 NAS1080AG05
31			Pin Collar	NAS2705V07 NAS1080AG05
32			Platenut	F49249E3-1
33			Receptacle	52956A4-1-119
34			Rivet	BRFS5T5
35			Pin Collar	SLS100CT-EU4-4 NAS1080UG04

LEGEND











-  Hole diameter is 0.159 +0.007 -0.000.
-  Hole diameter is 0.185 +0.003 -0.000.
-  Hole diameter is 0.191 +0.007 -0.000.
-  Hole diameter is 0.1600 +0.0025 -0.0000.
-  Hole diameter is 0.098 +0.008 -0.000.
-  Hole diameter is 0.385 +0.008 -0.000.
-  Hole diameter is 0.128 +0.006 -0.000.
-  Hole diameter is 0.1245 +0.0015 -0.0007.
-  Hole diameter is 0.281 +0.007 -0.000.
-  Hole diameter is 0.469 +0.007 -0.000.

Figure 32. Skin, 74A313055, Fastener Index (Sheet 5)

ORGANIZATIONAL MAINTENANCE

STRUCTURE REPAIR

NOSE BARRELL INTERNAL DOORS

Reference Material

Aircraft Weapons Systems Cleaning and Corrosion Control	NAVAIR 01-1A-509
Structure Illustrated Parts Breakdown, Forward Fuselage	A1-F18AC-SRM-420
Fuselage Nose Section - Forward Fuselage, Assembly of	FIG024 00
Structure Repair, General Information	A1-F18AC-SRM-200
Introduction	WP002 00
Gang Channel and Plate Nut Identification and Repair	WP004 05
Structure Repair, Typical Repair	A1-F18AC-SRM-250
Aluminum Patch Fabrication	WP006 01
Aluminum, Graphite Epoxy, or Titanium Patch Installation and Removal	WP007 00
Aluminum Sheet, Free of Structure and Land Areas	WP031 00
Aluminum and Titanium Sheet, Formed Structure	WP033 00
Aluminum Sheet Edge Repair	WP034 00
Aluminum Sheet Repairs, Across Structure and Lands	WP036 00
Blending	WP038 00
Aircraft Corrosion Control	A1-F18AC-SRM-500
Form In Place Sealing	WP010 00
Nose Barrel System and Markings	WP018 00

Alphabetical Index

Subject	Page No.
Damage Evaluation	2
Negligible Damage	2
Repairable Damage	2
Repairs	2
Permanent Repairs	2
Cracks	2
Dents	4
Edge	3
Holes	3
Scratches, Nicks, Gouges, or Corrosion	2
Replacement	10

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

None

1. **DAMAGE EVALUATION.** See figures 1 and 2.

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The types of materials used are shown on figure 1. Repair zones are shown on figure 2. Allowable damage limits within repair zones are listed in tables 1 and 2. Damage not listed or exceeding the following limits require a depot engineering disposition.

3. **NEGLIGIBLE DAMAGE.** Negligible damage is damage that may be allowed to exist as is. However, preventive maintenance, for temporary corrosion arrestment, should be done to scratches (NAVAIR 01-1A-509). The types and limits of damage are listed below and in table 1. The figure and index numbers in table 1 coincide with the figure and index numbers in the material index.

a. Scratches are not allowed within one diameter from the edge of any hole.

b. Smooth dents only, effective diameter at least 20 times the depth. Dents not allowed in the vicinity of bead fillet radii.

4. **REPAIRABLE DAMAGE.** The types and limits of damage are listed below and in table 2. The figure and index numbers in table 2 coincide with figure and index numbers in the material index, figure 1.

NOTE

The limits in table 2 apply after blending the damage.

a. Scratches.

(1) Any scratches within one diameter of any hole must be blended out. Minimum blend out is one diameter from edge of any hole.

(2) Scratches to be blended out with diameter, or width, at surface at least 20 times the depth.

b. Nicks, gouges, and corrosion to be blended out with diameter, or width, at surface at least 20 times the depth.

c. Cracks. All cracks must be repaired.

d. Holes.

(1) Damage in areas free of structure and lands must have edge of cleanup hole at least eight repair fastener diameters from any land, internal structure or existing row of fasteners.

(2) Damage to lands, overstructure, only one repair per land.

e. Dents exceeding the limits in table 1 must be repaired.

5. REPAIRS.

6. Types of repairs are temporary, one-time flight, permanent, critical area, alternate and typical. Repair type definition are in structure repair terms (A1-F18AC-SRM-200, WP002 00).

7. PERMANENT REPAIRS.

8. **Scratches, Nicks, Gouges, or Corrosion.** Blend scratches, nicks, gouges, or corrosion (A1-F18AC-SRM-250, WP038 00). If after blending, the damage limits of table 2 are exceeded, repair aluminum sheet as below. Refinish blended areas (A1-F18AC-SRM-500, WP018 00).

a. Scratches - make crack or edge repairs.

b. Nicks, gouges, or corrosion - make hole or edge repair.

9. Cracks.

a. In repair zone A3, repair cracks free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00).

(1) Rout out crack.

(2) Install lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

b. In repair zone B3 repair cracks free of structure or land areas in aluminum sheet (0.050 inch thickness or less).

(1) Completely cut out crack in the smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zone A3, repair cracks across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

(2) Make repairs.

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

d. In repair zone A3, repair cracks in aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) Install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

10. Holes.

a. In repair zone A3, repair holes free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00).

(1) Cut out damage.

(2) Install a type one flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

b. In repair zone B3 repair holes free of structure or land areas in aluminum sheet (0.050 inch thickness or less).

(1) Completely cut out damage in the smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zone A3, repair holes across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

(2) Make repairs.

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

d. In repair zone A3, repair holes in aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) Install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

11. **Edge.** In repair zone A3, repair edge damage in aluminum sheet (A1-F18AC-SRM-250, WP034 00).

a. Cut out damage.

b. Select and install repair patch.

(1) Corner Damage to Lands.

(2) Corner Damage to Lands and Bays.

(3) Edge Damage to Lands.

(4) Edge Damage to Lands and Bays.

(5) Full Width Damage to End.

c. Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

12. Dents.

a. In repair zone A3, repair dents free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00).

(1) Cut out damage.

(2) Install a type one flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

b. In repair zone B3 repair dents free of structure or land areas in aluminum sheet (0.050 inch thickness or less).

(1) Completely cut out damage in the smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM 250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

c. In repair zone A3, repair dents across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

(2) Make repairs.

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge or Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

d. In repair zone A3, repair dents in aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) Install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP018 00).

Table 1. Negligible Damage Limits

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 1 (1)	Door NBD Zone A3	0.037 0.080	0.002 0.002	0.002 0.002	100% 100%	0.019 0.040	N/A N/A
Fig 1 (2)	Door NBC Zone A3	0.020 0.032	0.002 0.002	0.002 0.002	100% 100%	0.010 0.016	N/A N/A
	Zone B3	0.020	0.0006	0.0006	100%	0.010	N/A
Fig 1 (3)	Door NBA Zone A3	0.032	0.002	0.002	100%	0.010	N/A
	Zone B3	0.032	0.0006	0.0006	100%	0.010	N/A
Fig 1 (4)	Door NBB Zone A3	0.032	0.002	0.002	100%	0.016	N/A
	Zone B3	0.032	0.0006	0.0006	100%	0.016	N/A

Table 2. Repairable Damage Limits After Blending

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Corrosion	
				Depth	Area	Depth	Area
Fig 1 (1)	Door NBD Zone A3	0.037 0.080	0.007 0.016	0.007 0.016	15% 15%	0.007 0.016	15% 15%
Fig 1 (2)	Door NBC Zone A3	0.020 0.032	0.004 0.006	0.004 0.006	15% 15%	0.004 0.006	15% 15%
	Zone B3	0.020	0.004	0.004	15%	0.004	15%
Fig 1 (3)	Door NBA Zone A3	0.032	0.004	0.004	15%	0.004	15%
	Zone B3	0.032	0.004	0.004	10%	0.004	10%
Fig 1 (4)	Door NBB Zone A3	0.032	0.006	0.006	10%	0.006	10%
	Zone B3	0.032	0.006	0.006	10%	0.006	10%

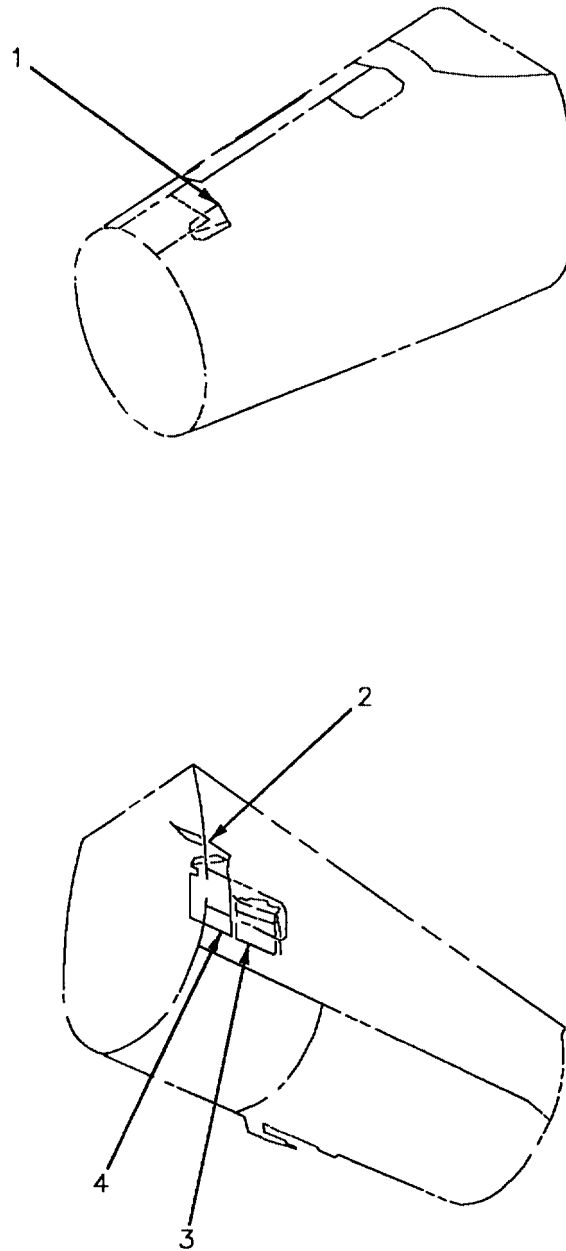


Figure 1. Material Index (Sheet 1)

















Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Cover (Door NBD) 74A313014-2117		7075-T6 Alclad
2		Seal (Door NBC) 74A313148-2063		7075-T6 Alclad
3	   	Seal (Door NBA) 74A313148-2043 74A313148-2101 74A313148-9007 74A313148-2101	0.032 Sheet	7075-T6 Alclad
4	 	Seal (Door NBB) 74A313148-2081 74A313148-2109	0.032 Sheet	7075-T6 Alclad
<p style="text-align: center;">LEGEND</p> <p> Land is 0.080 and bay is 0.037.</p> <p> 161353 THRU 161924.</p> <p> 161925 THRU 161951.</p> <p> 161353 THRU 161980.</p> <p> 161981 AND UP.</p> <p> 161952 THRU 162444.</p> <p> 162445 AND UP.</p> <p> Land is 0.032 remaining thickness is 0.020.</p>				

Figure 1. Material Index (Sheet 2)

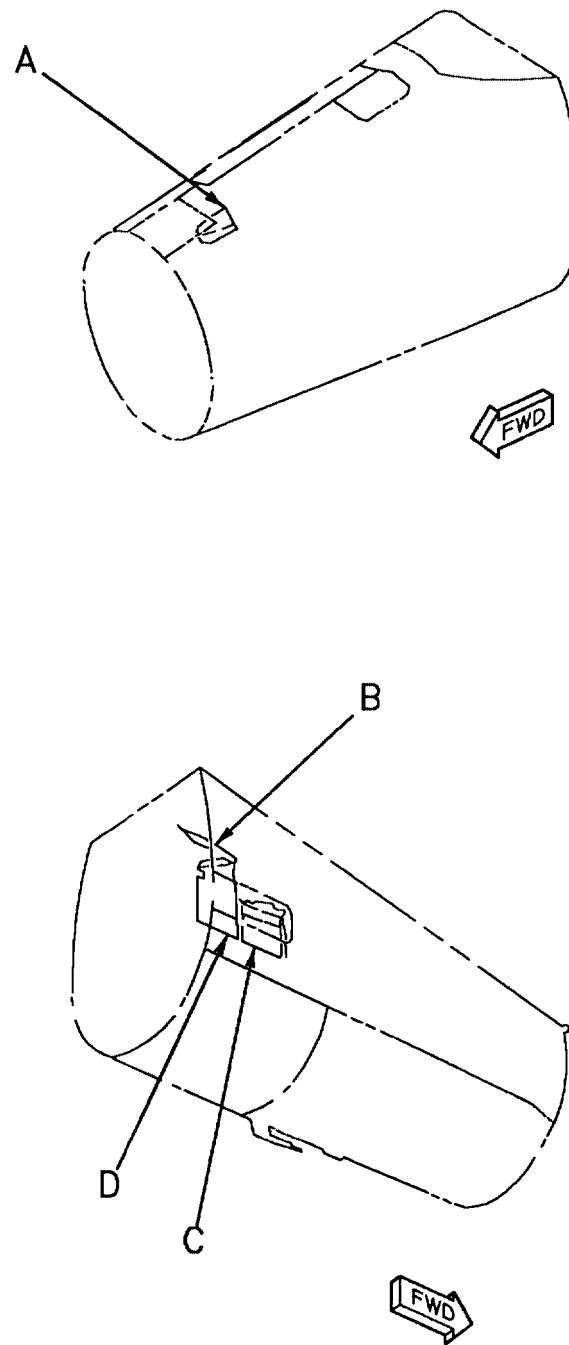


Figure 2. Repair Zones (Sheet 1)

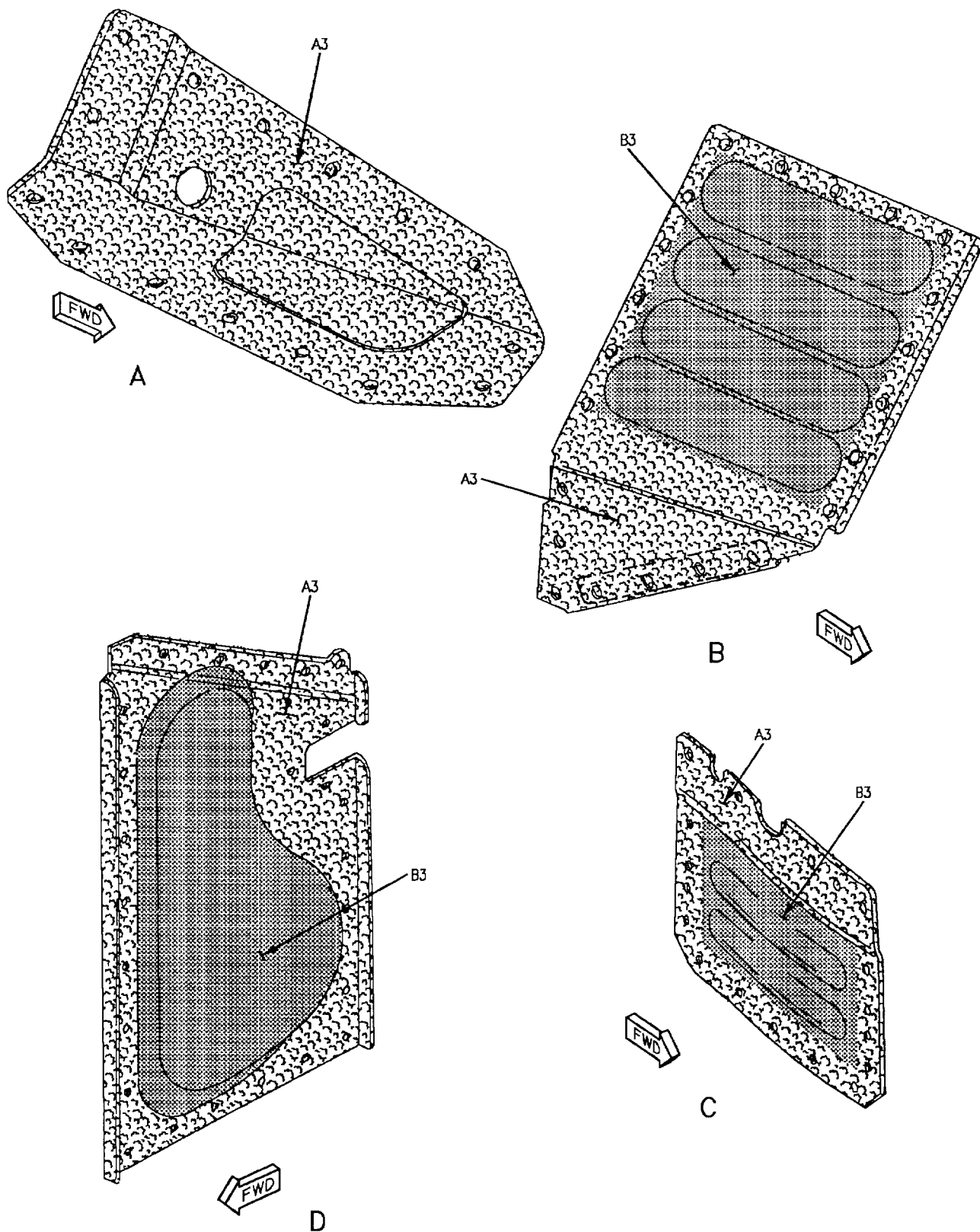


Figure 2. Repair Zones (Sheet 2)

13. REPLACEMENT.

14. Fastener attaching hardware is shown for doors as follows:

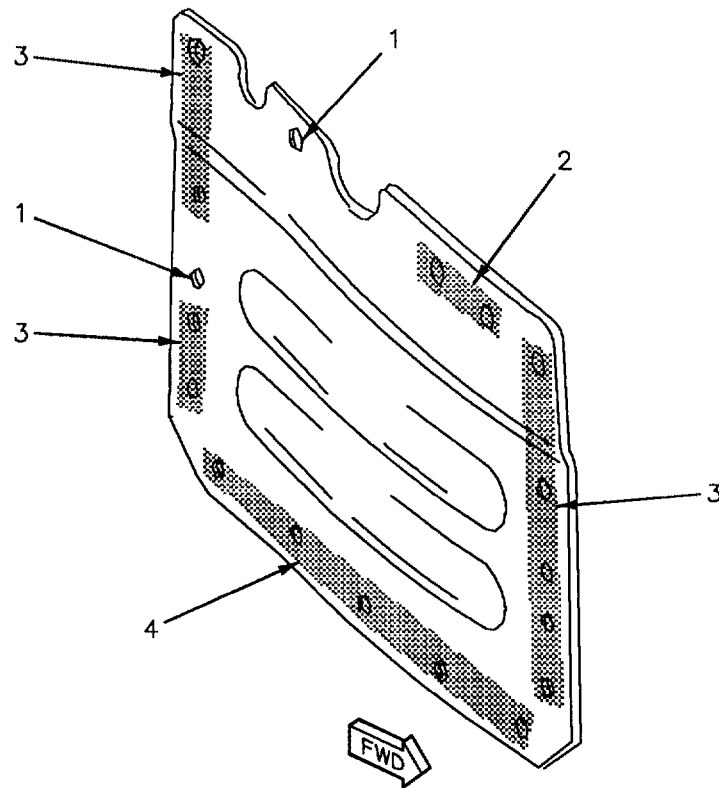
a. Seal (Door NBA), fastener attaching hardware is shown on figure 3. For fasteners (A1-F18AC-SRM-420, FIG 024 00). Replacement of door requires installing a new form in place seal (A1-F18AC-SRM-500, WP010 00). Apply finish system as required (A1-F18AC-SRM-500, WP018 00). For replacement of plate nuts and gang channels (A1-F18AC-SRM-200, WP004 05).

b. Seal (Door NBB), fastener attaching hardware is shown on figure 4. For fasteners (A1-F18AC-SRM-420, FIG 024 00). Replacement of door requires installing a new form in place seal (A1-F18AC-SRM-500, WP010

00). Apply finish system as required (A1-F18AC-SRM-500, WP018 00). For replacement of plate nuts and gang channels (A1-F18AC-SRM-200, WP004 05).

c. Seal (Door NBC), fastener attaching hardware is shown on figure 5. For fasteners (A1-F18AC-SRM-420, FIG 024 00). Replacement of door requires installing a new form in place seal (A1-F18AC-SRM-500, WP010 00). Apply finish system as required (A1-F18AC-SRM-500, WP018 00). For replacement of plate nuts and gang channels (A1-F18AC-SRM-200, WP004 05).

d. Cover (Door NBD), fastener attaching hardware is shown on figure 6. For fasteners (A1-F18AC-SRM-420, FIG 024 00). Replacement of door requires installing a new form in place seal (A1-F18AC-SRM-500, WP010 00). Apply finish system as required (A1-F18AC-SRM-500, WP018 00). For replacement of plate nuts (A1-F18AC-SRM-200, WP004 05).



18AC-SRM-221-(80-1)01-SCAN

Idx No.	Eft		Nomenclature	Part Number
1			Plate Nut	F50339-3-2
2	 	 	Gang Channel Gang Channel	G50345-3-2-14 G50345-3-2-11
3			Gang Channel	G50346-3-2-11
4			Gang Channel	G50345-3-2-12
LEGEND				
Hole diameter is 0.195 +0.007 -0.000. 161353 THRU 161924. 161926 AND UP. Attached with NAS1097U3 rivet, length to be determined on installation.				

Figure 3. Seal (Door NBA) Replacement

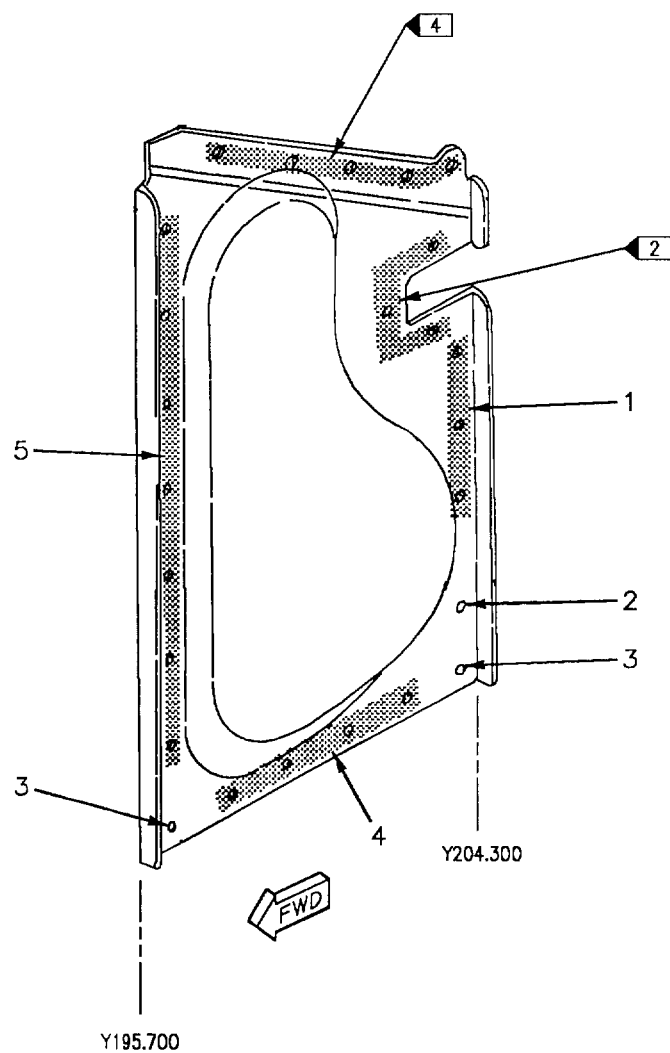


Figure 4. Seal (Door NBB) Replacement (Sheet 1)















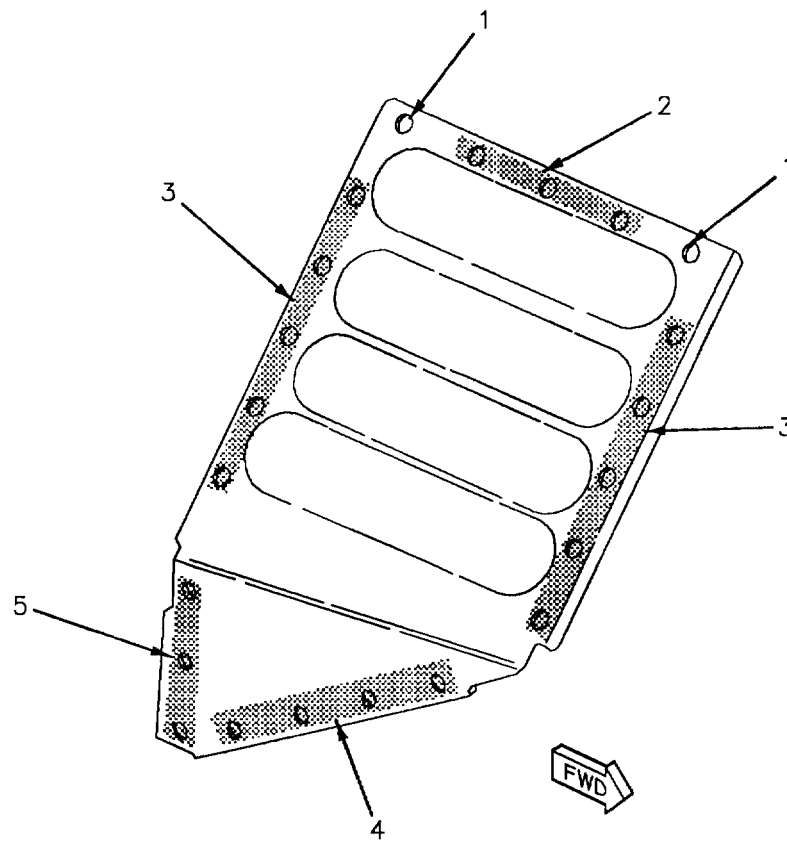
Idx No.	Eft		Nomenclature	Part Number
1			 Gang Channel	G50345-3-1-14
2			 Plate Nut	F50339-3-1
3			 Plate Nut	F50403-3-1
4			 Gang Channel	G50345-3-2-16
5			 Gang Channel	G50345-3-2-16
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.195 +0.007 -0.000.</p> <p> Attaching holes for waveguide.</p> <p> Attached with NAS1097U3 rivets, length to be determined on installation.</p> <p> For attaching hardware, see figure 5.</p>				

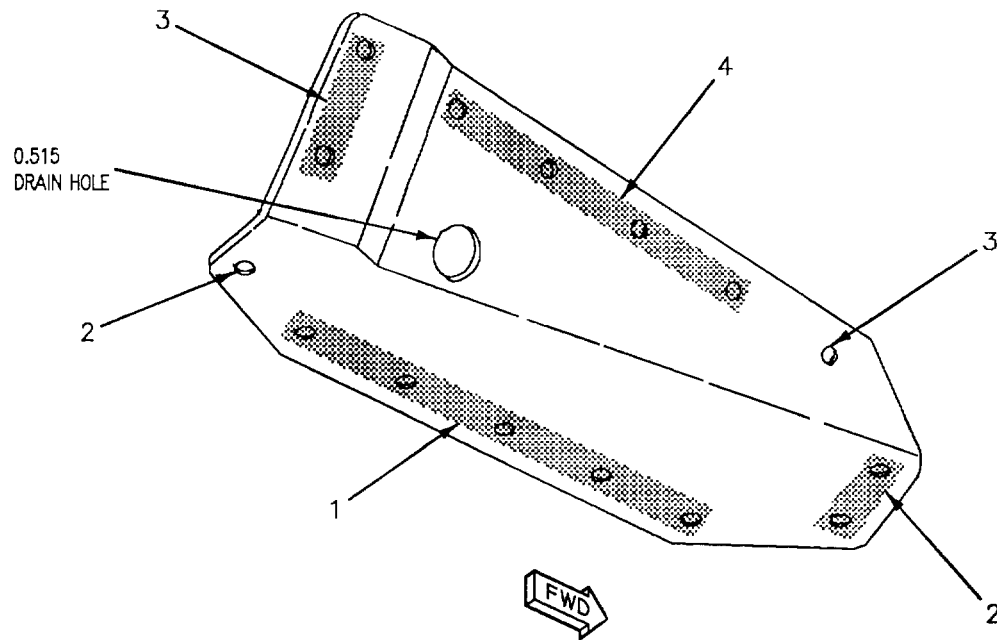
Figure 4. Seal (Door NBB) Replacement (Sheet 2)



18AC-SRM-221-(82-1)01-SCAN

Idx No.	Eft		Nomenclature	Part Number
1			Plate Nut	F50340-3-2
2			Gang Channel Spacer	G50345-3-2-14 74A313148-2057
3			Gang Channel	G50345-3-2-12
4			Gang Channel	G50345-3-2-14
5			Gang Channel	G50345-3-1-12
LEGEND				
Hole diameter is 0.195 +0.007 -0.000.				
Attached with NAS1097U3 rivets, length to be determined on installation.				

Figure 5. Seal (Door NBC) Replacement



18AC-SRM-221-(83-1)01-SCAN









Idx No.	Eft		Nomenclature	Part Number
1			Plate Nut Spacer	MS21060L3 4M30D10-125
2			Plate Nut	MS21060L3
3			 Plate Nut	MS21060L3
4			 Plate Nut Spacer	MS21060L3 4M30D10-125
LEGEND				
 Hole diameter is 0.191 +0.006 -0.000.				
 Attached with NAS1097AD3 rivets, length to be determined on installation.				

Figure 6. Cover (Door NBD) Replacement

ORGANIZATIONAL AND DEPOT MAINTENANCE
STRUCTURE REPAIR**FORWARD FUSELAGE SKINS**

Reference Material

Aircraft Corrosion Control	A1-F18AC-SRM-500
Forward Fuselage Main Structure Assembly Finish System and Markings	WP024 00
Form In Place Sealing	WP010 00
Aircraft Weapons Systems Cleaning and Corrosion Control	NAVAIR 01-1A-509
Structure Repair, General Information	A1-F18AC-SRM-200
Introduction	WP002 00
Cold Working Fastener Holes	WP004 10
Fasteners	WP004 06
Oversize Fasteners	WP004 07
Structure Repair, Typical Repair	A1-F18AC-SRM-250
Aluminum Sheet, Free of Structure and Land Areas	WP031 00
Aluminum and Titanium Sheet, Formed Structure	WP033 00
Aluminum Sheet Edge Repair	WP034 00
Aluminum Sheet Repairs, Across Structure and Lands	WP036 00
Blending	WP038 00
Aluminum, Graphite Epoxy, or Titanium Patch Installation and Removal	WP007 00
Aluminum Patch Fabrication	WP006 01
Structure Repair, Forward Fuselage	A1-F18AC-SRM-220
Forward Fuselage External Numbered Metal Doors Replacement	WP033 00

Alphabetical Index

Subject	Page No.
Damage Evaluation	2
Negligible Damage	2
Repairable Damage	2
Repairs	2
Permanent Repairs	2
Cracks	3
Dents	4
Edge	4
Holes	3
Scratches, Nicks, Gouges or Corrosion	2
Sill Repair (Door 9)	5
Support Equipment Required	2

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

None

1. DAMAGE EVALUATION. See figures 1 and 2.

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The types of materials used are shown on figure 1. Repair zones are shown on figure 2. Allowable damage limits within repair zones are listed in tables 1 and 2. Repair to aluminum sheet across structure or land areas, 0.063 inch material or thicker, in zone B2 is depot maintenance. Damage not listed or exceeding the following limits require depot engineering disposition.

3. **NEGLIGIBLE DAMAGE.** Negligible damage is damage that may be allowed to exist as is. However, preventive maintenance, for temporary corrosion arrestment, should be done to scratches (NAVAIR 01-1A-509). The types and limits of damage are listed below and in table 1. The figure and index numbers in table 1 coincide with the figure and index numbers in the material index.

a. Scratches are not allowed within one diameter from the edge of any hole.

b. Smooth dents only, effective diameter at least 20 times the depth.

4. **REPAIRABLE DAMAGE.** The types and limits of damage are listed below and in table 2. The figure and index numbers in table 2 coincide with figure and index numbers in the material index, figure 1.

NOTE

The limits in table 2 apply after blending the damage.

a. Scratches.

(1) Any scratches within one diameter of any hole must be blended out. Minimum blend out is one diameter from edge of any hole.

(2) Scratches to be blended out with diameter, or width, at surface at least 20 times the depth.

b. Nicks, gouges, and corrosion to be blended out with diameter, or width, at surface at least 20 times the depth.

c. Cracks. All cracks must be repaired.

d. Holes.

(1) Damage in areas free of structure and lands must have edge of cleanup hole at least eight repair fastener diameters from any land, internal structure, or existing row of fasteners.

(2) Damage to lands, overstructure. Only one repair per land.

e. Dents exceeding the limits in table 1 must be repaired.

5. REPAIRS.

6. Types of repairs are temporary, one-time flight, permanent, critical area, alternate and typical. Repair type definitions are in structure repair terms (A1-F18AC-SRM-200, WP002 00).

7. PERMANENT REPAIRS.

8. **Scratches, Nicks, Gouges or Corrosion.** Blend scratches, nicks, gouges or corrosion (A1-F18AC-SRM-250, WP038 00). If, after blending, the damage limits of table 2 are exceeded, repair aluminum sheet as below. Refinish blended areas (A1-F18AC-SRM-500, WP024 00):

a. Scratches - make crack or edge repair.

b. Nicks, gouges, or corrosion - make hole or edge repair.

9. Cracks.

a. In repair zone B2, repair cracks free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00):

(1) Completely cut out crack in the smallest diameter circle possible in repair zone B2.

(2) In repair zone B2, install a type two flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

b. In repair zone B3, repair cracks free of structure or land areas in aluminum sheet, 0.050 inch thick or less.

(1) Completely cut out crack in the smallest diameter circle possible.

(2) Fabricate aluminum patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

c. In repair zone B2, repair cracks across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

NOTE

When making a repair in zone B2, to 0.063 inch or thicker material, all fastener holes shall either be cold worked (A1-F18AC-SRM-200, WP004 10) or drilled to an interference fit (A1-F18AC-SRM-200, WP004 06 for standard fasteners or WP004 07 for oversize fasteners). Cold working or drilling interference fit holes is depot maintenance.

(2) In repair zone B2, make repairs.

(a) Damage to Bay Requiring Repair Across Lands; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Lands and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

d. In repair zone B2, repair cracks to aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) In repair zone B2, install repair one through six. Select repair that can be adapted to damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

10. Holes.

a. In repair zone B2, repair holes free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00).

(1) Cut out damage.

(2) In repair zone B2, install a type two flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

b. In repair zone B3, repair holes free of structure or land areas in aluminum sheet, 0.050 inch thick or less.

(1) Completely cut out damage in the smallest diameter circle possible.

(2) Fabricate aluminum patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

c. In repair zones B2, repair holes across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

NOTE

When making repair in repair zone B2 to 0.063 inch thick or greater material, all fastener holes shall either be cold worked (A1-F18AC-SRM-200, WP004 10) or drilled to an interference fit (A1-F18AC-SRM-200, WP004 06 for standard fasteners or WP004 07 for oversize fasteners). Cold working or drilling interference fit holes is depot maintenance.

(2) In repair zone B2, make repairs.

(a) Damage to Bay Requiring Repair Across Lands; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Lands and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

d. In repair zone B2, repair holes to aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) In repair zone B2, install repair one through six. Select repair that can be adapted to damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

11. **Edge.** In repair zone B2, repair edge damage in aluminum sheet (A1-F18AC-SRM-250, WP034 00).

a. Cut out damage.

b. Select and install repair patch.

(1) Corner Damage to Lands.

(2) Corner Damage to Lands and Bays.

(3) Edge Damage to Lands.

(4) Edge Damage to Lands and Bays.

(5) Full Width Damage to End.

c. Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

12. **Dents.**

a. In repair zone B2, repair dents free of structure or land areas in aluminum sheet.

(1) Cut out damage.

(2) In repair zone B2, install a type two flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

b. In repair zone B3, repair dents free of structure or land areas in aluminum sheet, 0.050 inch thick or less.

(1) Completely cut out damage in the smallest diameter circle possible.

(2) Fabricate aluminum patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

c. In repair zone B2, repair dents across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

NOTE

When making repair in repair zone B2, 0.063 inch thick or greater material, all fastener holes shall either be cold worked (A1-F18AC-SRM-200, WP004 10) or drilled to an interference fit (A1-F18AC-SRM-200, WP004 06 for standard fasteners or WP004 07 for oversize fasteners). Cold working or drilling interference fit holes is depot maintenance.

(2) In repair zone B2, make repairs.

(a) Damage to Bay Requiring Repair Across Lands; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Lands and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

d. In repair zone B2, repair dents to aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) In repair zone B2, install repair one through six. Select repair that can be adapted to damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

13. **SILL REPAIR (DOOR 9).** See figure 3.



Removing more material than required to eliminate the damage will weaken the structure.

a. Blend out nicks and scratches in door sill latch contact area by routing and finish hand sanding. Damage exceeding the limits shown in view A, repair per view B.













































b. Prime and top coat (A1-F18AC-SRM-500, WP024 00).

c. Repair damage to form-in-place seal (A1-F18AC-SRM-500, WP010 00).

d. Replace TL18046-101-090 latch with TL18068-101-090 latch.

e. Adjust door latch (WP033 00).

Table 1. Negligible Damage Limits

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 1 (1)	Skin Zone B2 Zone B3 Zone B4	0.063	0.0006	0.0006	100%		
		0.042	0.0006	0.0006	100%	0.021	
		0.050	0.0006	0.0006	100%	0.025	
		0.090	0.0006	0.0006	100%		
		0.063	0.0006	0.0006	100%		
Fig 1 (3)	Skin Zone B3	0.049	0.0006	0.0006	100%	0.024	
		0.063	0.0006	0.0006	100%		5%
		0.080	0.0006	0.0006	100%		5%
Fig 1 (4)	Skin Zone B3	0.080	0.0006	0.0006	100%	 0.040	
		0.049	0.0006	0.0006	100%	0.023	
		0.063	0.0006	0.0006	100%		
		0.090	0.0006	0.0006	100%		
Fig 1 (7)	Skin Zone B3	0.050	0.0006	0.0006	100%	0.025	
		0.080	0.0006	0.0006	100%	0.040	
		0.090	0.0006	0.0006	100%		
		0.100	0.0006	0.0006	100%		
Fig 1 (12)	Skin Zone C3	0.050	0.0006	0.0006	100%	0.025	
		0.080	0.0006	0.0006	100%		
		0.100	0.0006	0.0006	100%		
Fig 1 (13)	Skin Zone B3	0.042	0.0006	0.0006	100%	0.021	
		0.063	0.0006	0.0006	100%		5%
Fig 1 (14)	Skin Zone B3	0.125	0.0006	0.0006	100%		
		0.100	0.0006	0.0006	100%		
		0.060	0.0006	0.0006	100%		5%
		0.030	0.0006	0.0006	100%	0.015	
Fig 1 (15)	Skin Zone B3	0.100	0.0006	0.0006	100%		
		0.067	0.0006	0.0006	100%		
	Zone C3	0.045	0.0006	0.0006	100%	0.023	
		0.100	0.0006	0.0006	100%		

NOTES



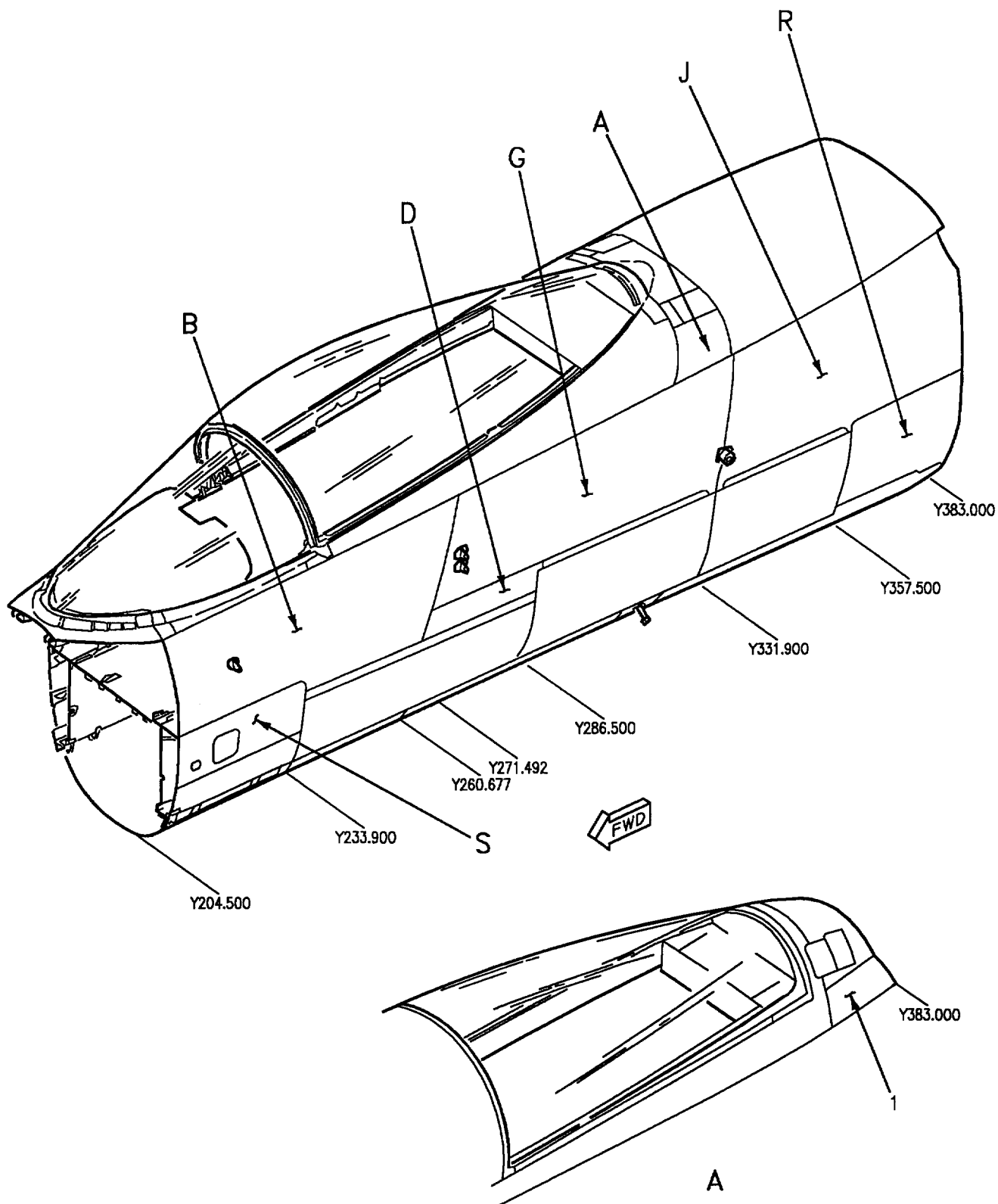
None allowed.



No dents allowed where skin fits on upper frames.

Table 2. Repairable Damage Limits After Blending

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Corrosion	
				Depth	Area	Depth	Area
Fig 1 (1)	Skin Zone B2 Zone B3 Zone B4	0.063	0.013	0.013	10%	0.013	10%
		0.042	0.008	0.008	10%	0.008	10%
		0.050	0.010	0.010	10%	0.010	10%
		0.090	0.018	0.018	10%	0.018	10%
		0.063	0.013	0.013	10%	0.013	10%
Fig 1 (3)	Skin Zone B3	0.049	0.010	0.010	10%	0.010	10%
		0.063	0.013	0.013	10%	0.013	10%
		0.080	0.016	0.016	10%	0.016	10%
Fig 1 (4)	Skin Zone B3	0.080	0.016	0.016	10%	0.016	10%
		0.049	0.010	0.010	10%	0.018	10%
		0.063	0.013	0.013	10%	0.013	10%
		0.090	0.018	0.018	10%	0.018	10%
Fig 1 (7)	Skin Zone B3	0.050	0.010	0.010	10%	0.010	10%
		0.080	0.016	0.016	10%	0.016	10%
		0.090	0.018	0.018	10%	0.018	10%
		0.100	0.020	0.020	10%	0.020	10%
Fig 1 (12)	Skin Zone C3	0.050	0.010	0.010	10%	0.010	10%
		0.080	0.016	0.016	10%	0.016	10%
		0.100	0.020	0.020	10%	0.020	10%
Fig 1 (13)	Skin Zone B3	0.042	0.008	0.008	10%	0.008	10%
		0.063	0.013	0.013	10%	0.013	10%
Fig 1 (14)	Skin Zone B3	0.125	0.025	0.025	10%	0.025	10%
		0.100	0.020	0.020	10%	0.020	10%
		0.060	0.012	0.012	10%	0.012	10%
		0.030	0.006	0.006	10%	0.006	10%
Fig 1 (15)	Skin Zone B3	0.100	0.020	0.020	10%	0.020	10%
		0.067	0.013	0.013	10%	0.013	10%
		0.045	0.009	0.009	10%	0.009	10%
		0.100	0.020	0.020	10%	0.020	10%
	Zone C3						



F/A-18B

Figure 1. Material Index (Sheet 1)

18AC-SRM-221-(84-1)01-CATI

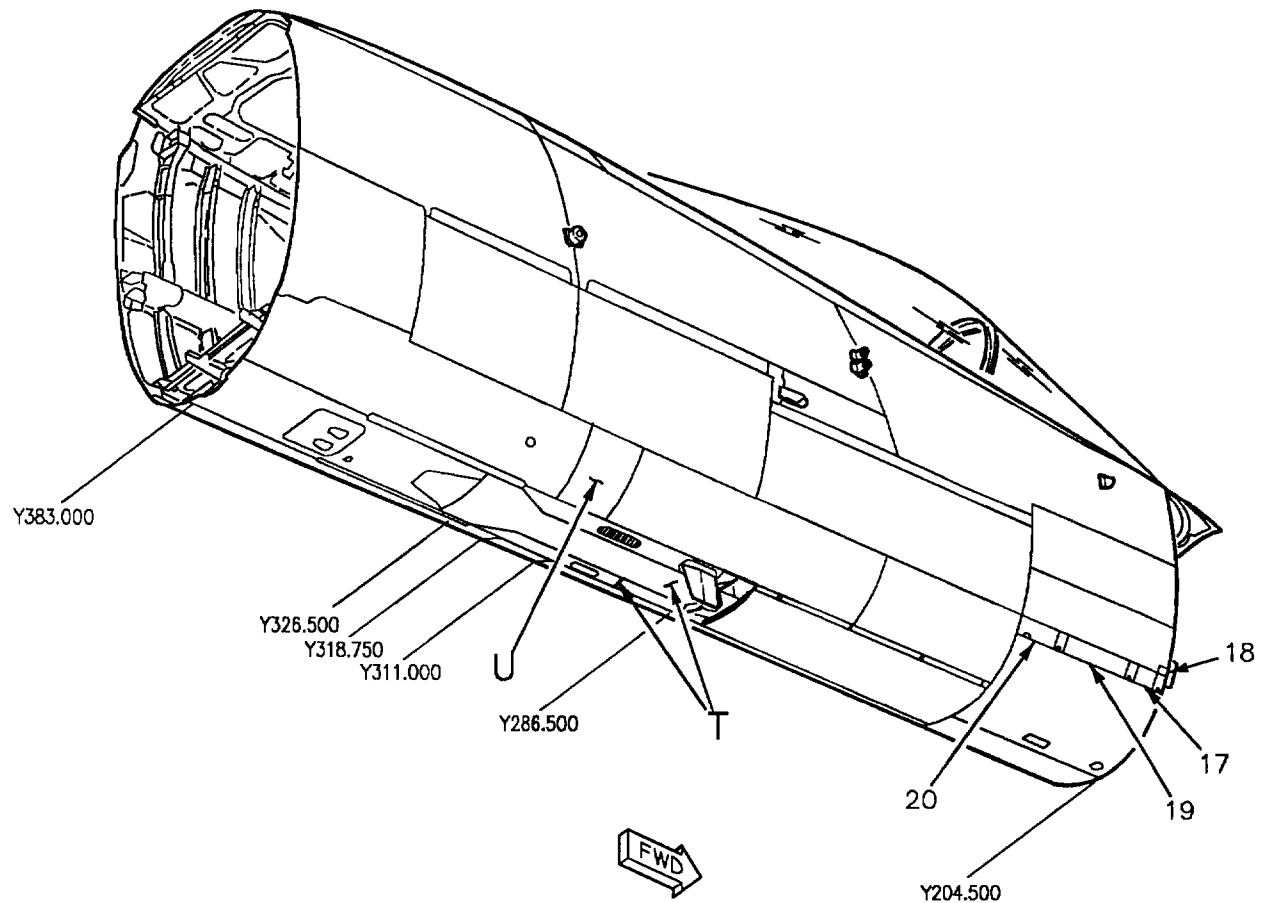
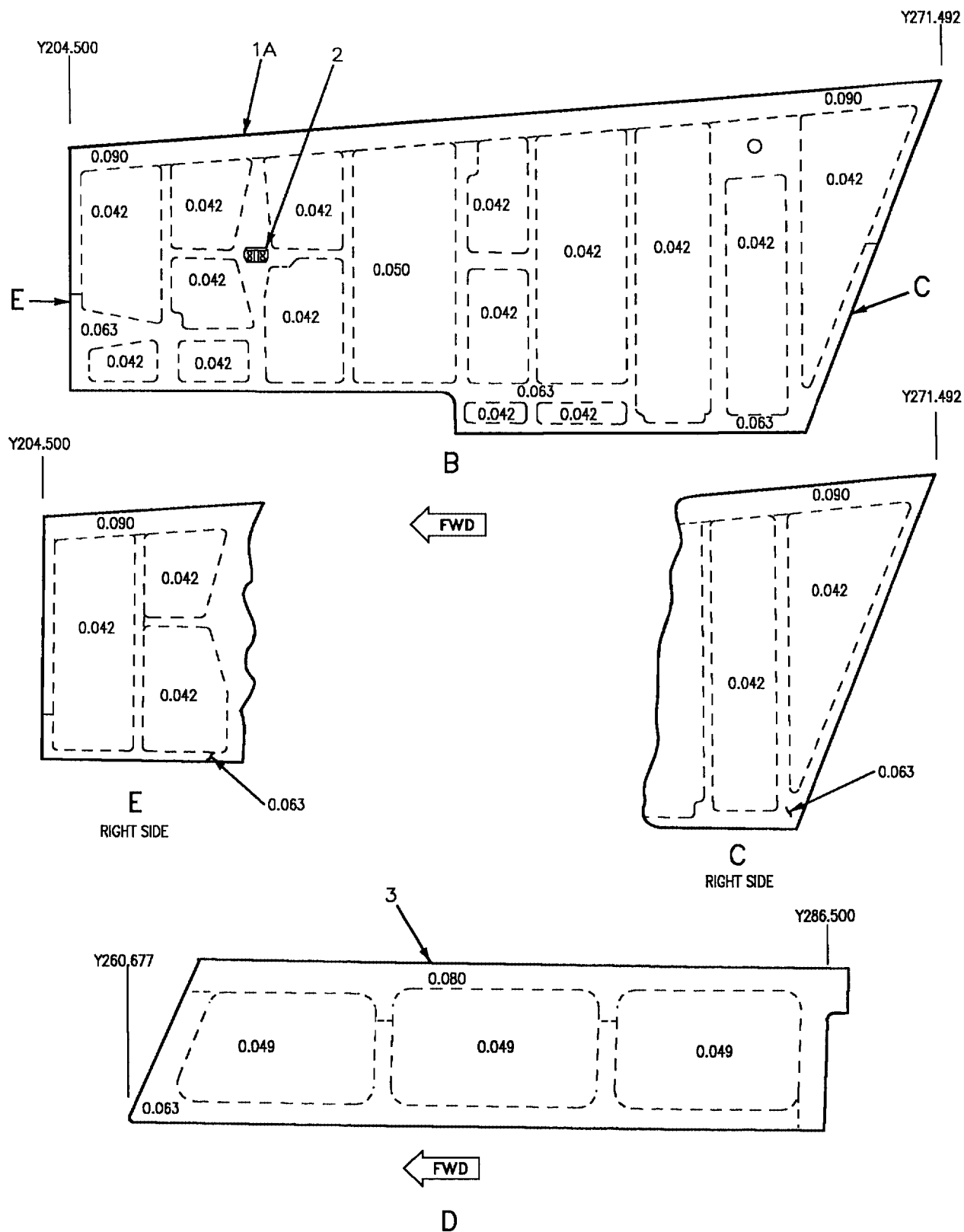


Figure 1. Material Index (Sheet 2)



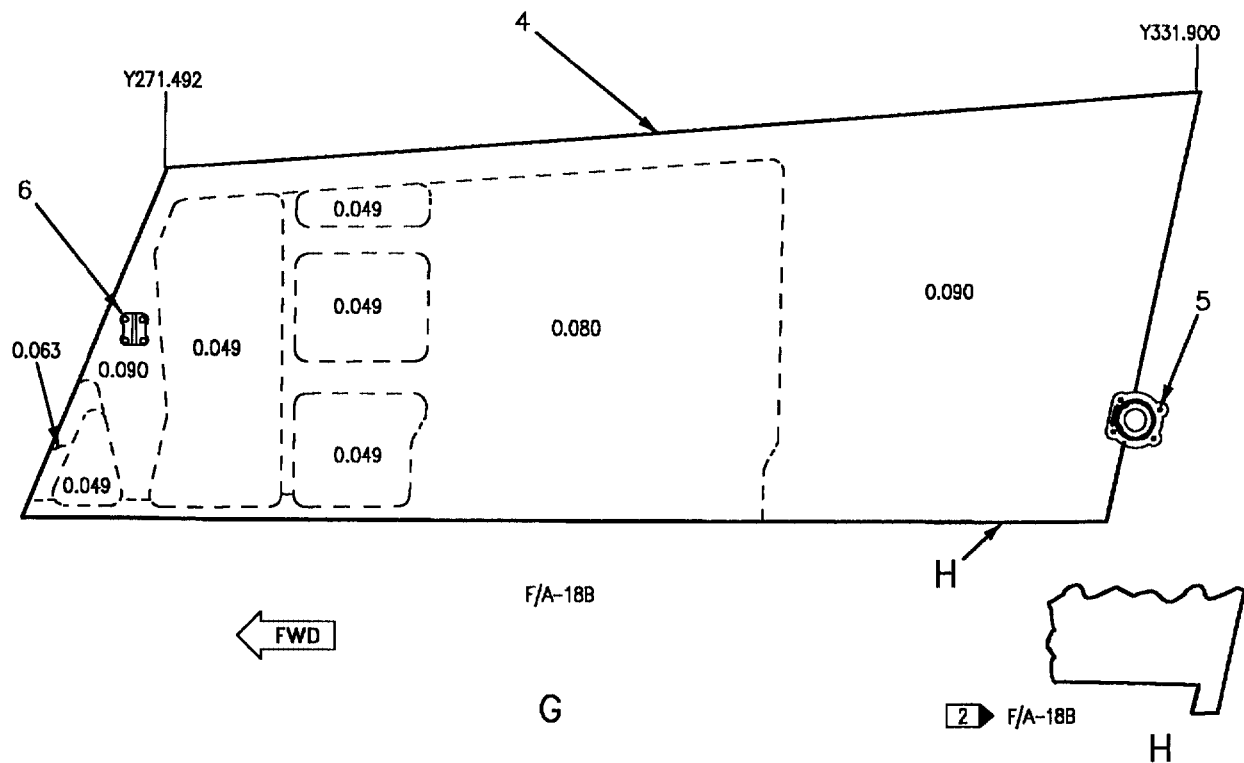
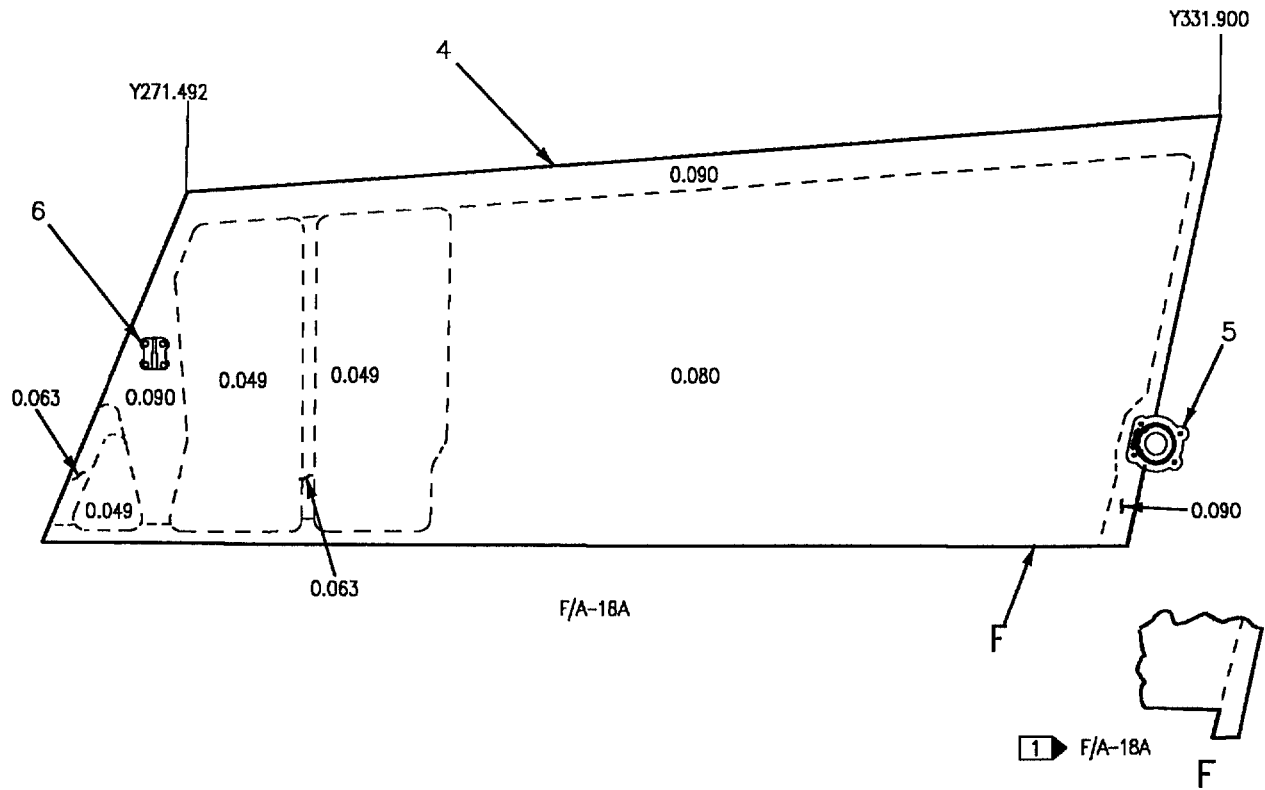
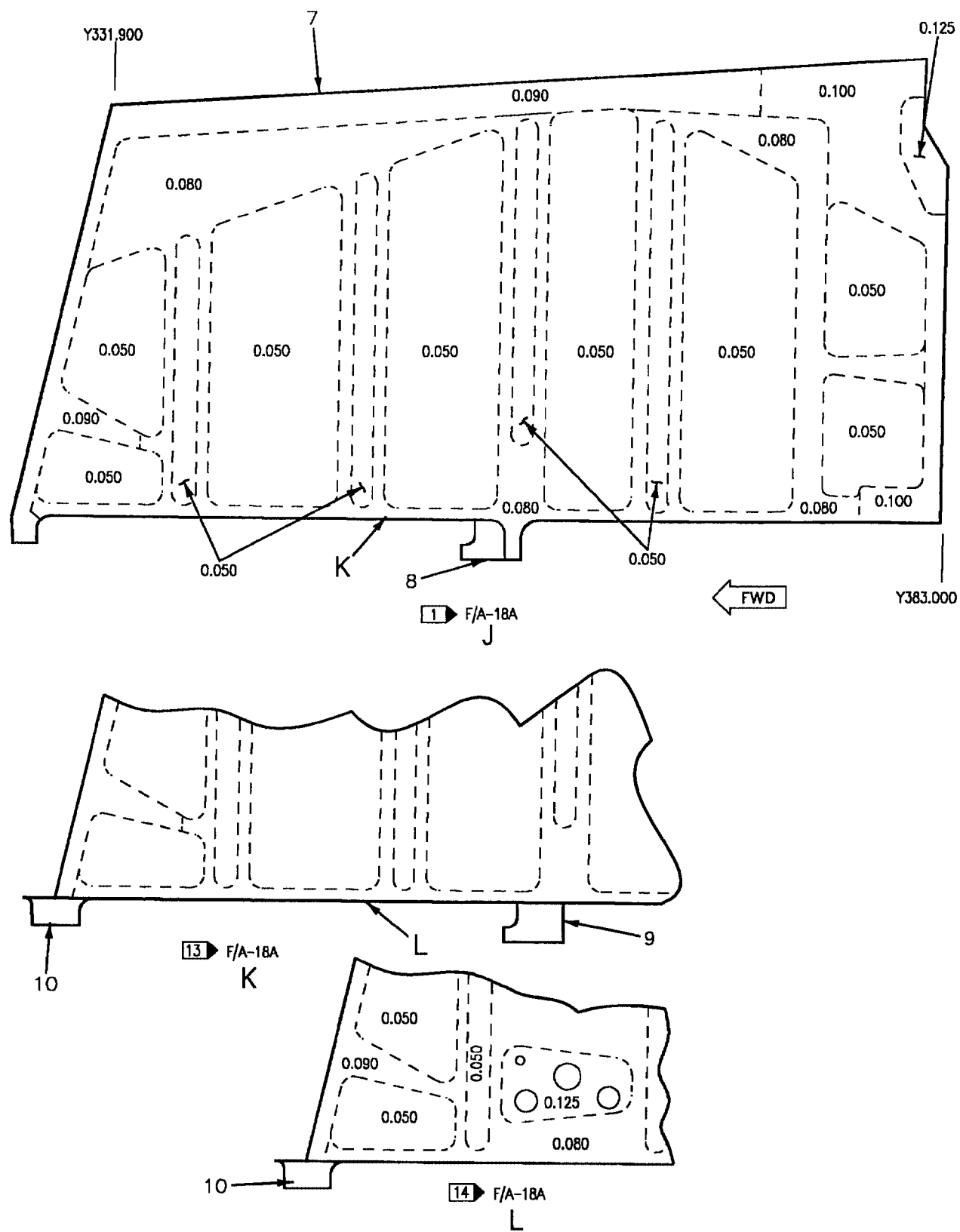


Figure 1. Material Index (Sheet 4)



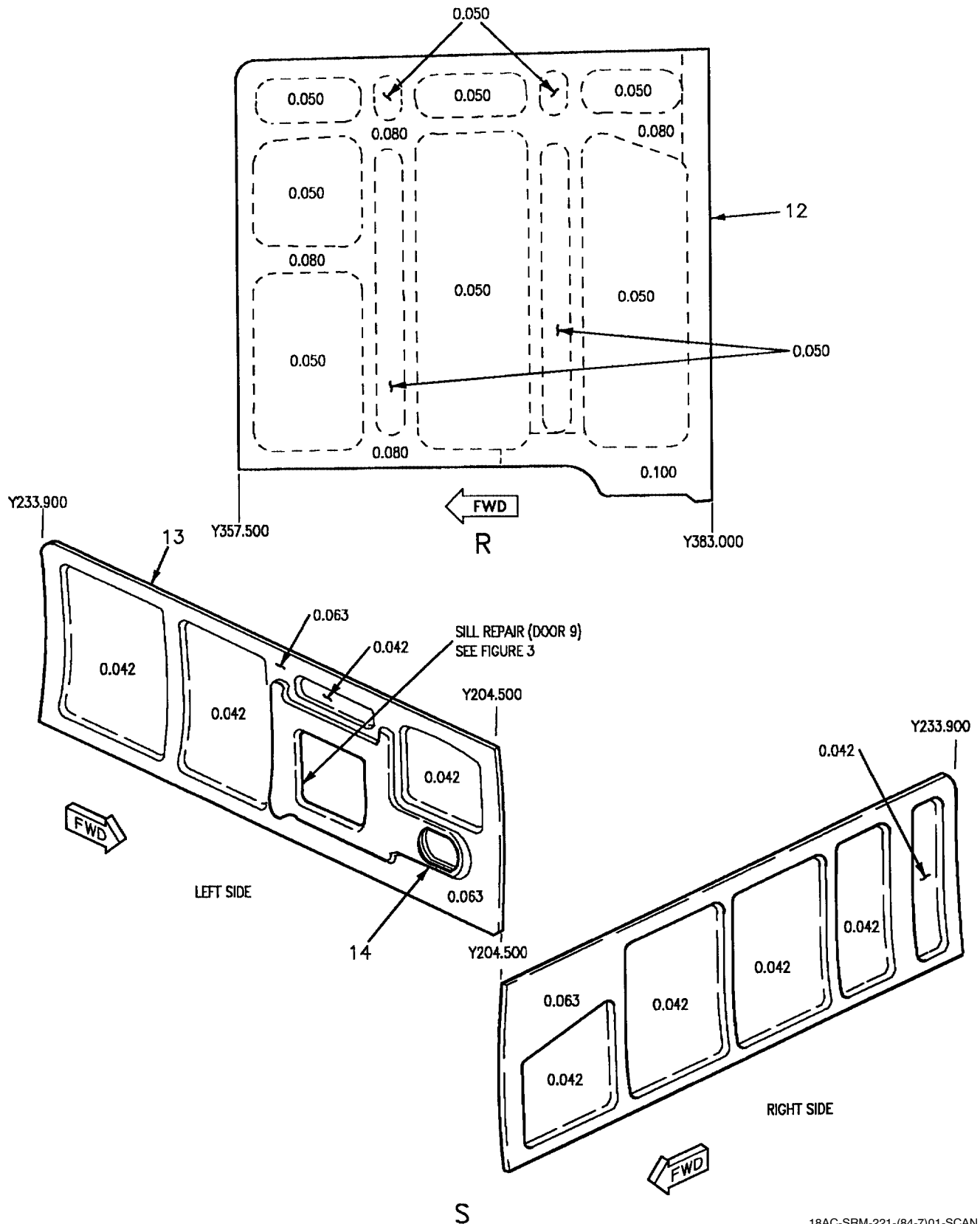


Figure 1. Material Index (Sheet 7)

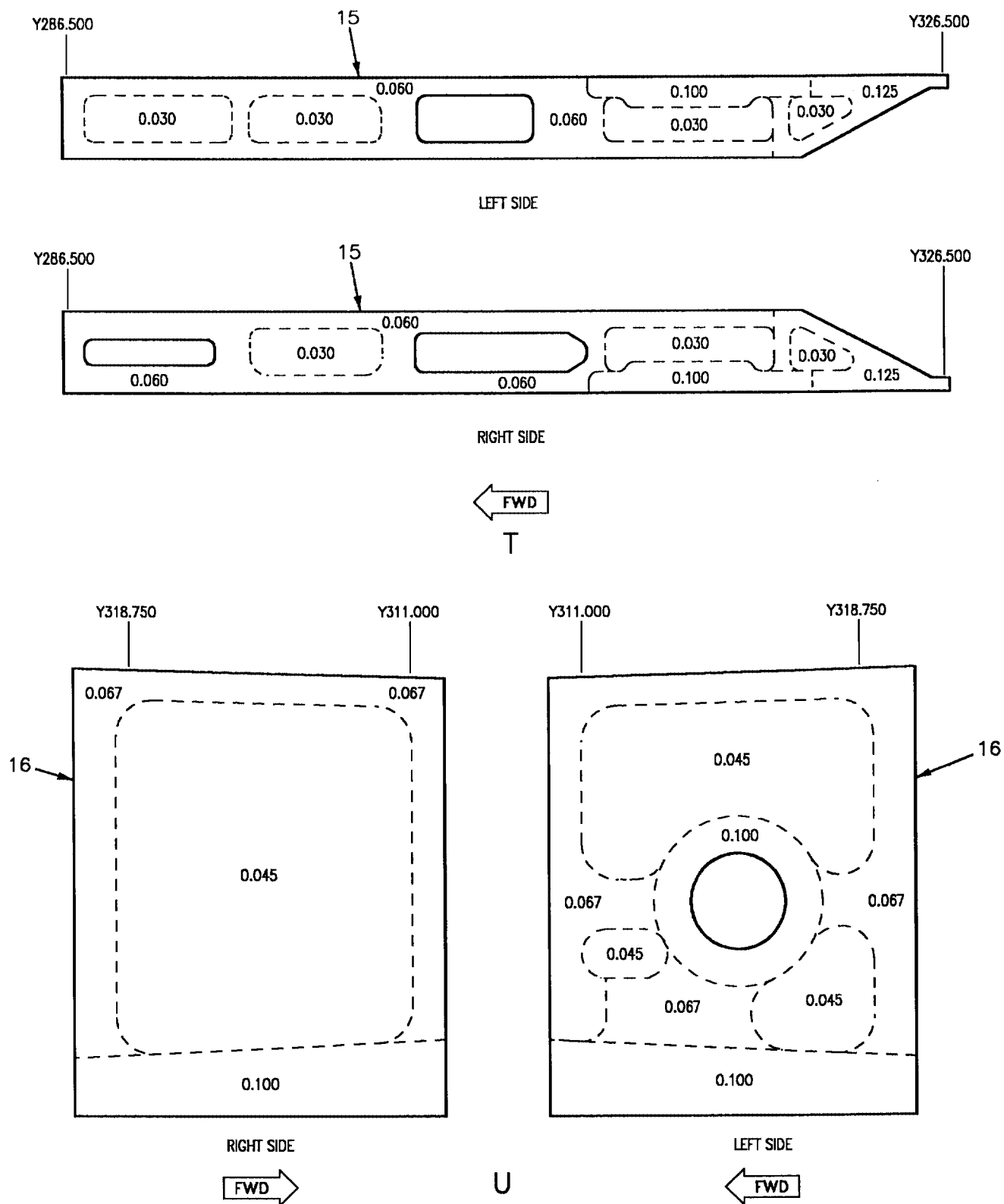


Figure 1. Material Index (Sheet 8)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Skin 74A314855-2001, -2002	18 Sheet	7075-0 Alclad
1A		Skin 74A314001-2005, -2006	0.090 Sheet	7075-T76 Alclad
2		Support 74A314668-2007, -2008	1MA160D01-10487 Extr	7075-T73 Al Aly
3		Skin 74A314014-2013, -2020	0.080 Sheet	7075-T6 Alclad
4	1 5 2 6	Skin 74A314014-2011, -2012 74A314014-2021, -2022 74A314808-2003, -2004 74A314808-2005, -2006	0.090 Sheet	7075-T76 Alclad
5		Support 74A314624-2003, -2004	2.00 Plate	7075-T7351 Al Aly
6	11 12 17	Support 74A314622-2005, -2006 74A314622-2009, -2010 74A314622-2011, -2012	Forging	6Al-4V Ti Anl
7	1 13 14 2 15 16	Skin 74A314025-2009, -2010 74A314025-2011, -2012 74A314025-2011, -2016 74A314815-2005, -2006 74A314815-2007, -2008 74A314815-2007, -2012	0.125 Sheet	7075-T76 Alclad
8	7	Retainer 74A314442-2003, -2004	0.250 Plate	7075-T7651 Alclad
9	8	Retainer 74A314442-2005, -2006	0.250 Plate	7075-T7651 Alclad
10	5	Skin 74A314025-2013, -2014	0.090 Sheet	7075-T76 Alclad
11	6	Skin 74A314815-2009, -2010	0.090 Sheet	7075-T76 Alclad
12	7 8	Skin 74A314314-2001, -2002 74A314314-2003, -2004	0.100 Sheet	7075-T76 Alclad

Figure 1. Material Index (Sheet 9)























Idx No.	Eft	Nomenclature and Part No.	Description	Material
13	 	Skin 74A314201-9005, -2006 74A314201-2013, -2006	0.063 Sheet	7075-T6 Alclad
14		Doubler 74A314201-2015	0.063 Sheet	7075-T6 Alclad
15		Skin 74A314391-2019, -2009	0.125 Sheet	7075-T76 Alclad
16	 	Skin 74A314387-2011, -2002 74A314387-2013, -2002	0.100 Sheet	7075-T76 Alclad
17 L/R		Skin 74A314409-2001	0.063 Sheet	7075-T6 Alclad
18		Skin 74A314409-2007, -2008	0.063 Sheet	7075-T6 Alclad
19 L/R		Skin 74A314409-2003	0.063 Sheet	7075-T6 Alclad
20 L R		Skin 74A314409-2005 74A314409-2011	0.063 Sheet	7075-T6 Alclad
LEGEND				
 F/A-18A 161353 THRU 161761, 161935, 161944, 161949 AND 161954.				
 F/A-18B 161354 THRU 161924.				
 161353 THRU 161363.				
 161364 AND UP.				
 F/A-18A 161925 THRU 161934, 161936 THRU 161942, 161945 THRU 161948, 161950 THRU 161953, 161955 AND UP.				
 F/A-18B 161932 AND UP.				
 161353 THRU 161924, 161935, 161944, 161949, AND 161954.				
 161925 THRU 161934, 161936 THRU 161943, 161945 THRU 161948, 161950 THRU 161953 AND 161955 AND UP.				
 161353 THRU 161736.				
 161737 AND UP.				
 161353 THRU 161976.				
 161977 THRU 162477.				
 F/A-18A 161925 THRU 161934, 161936 THRU 161942, 161945 THRU 161948, 161950 THRU 161953, 161955 THRU 161987.				
 F/A-18A 162394 AND UP.				
 F/A-18B 161932 THRU 161947.				
 F/A-18B 162402 AND UP.				
 162826 AND UP.				
 Lands are 0.063 and bays are 0.030.				

Figure 1. Material Index (Sheet 10)

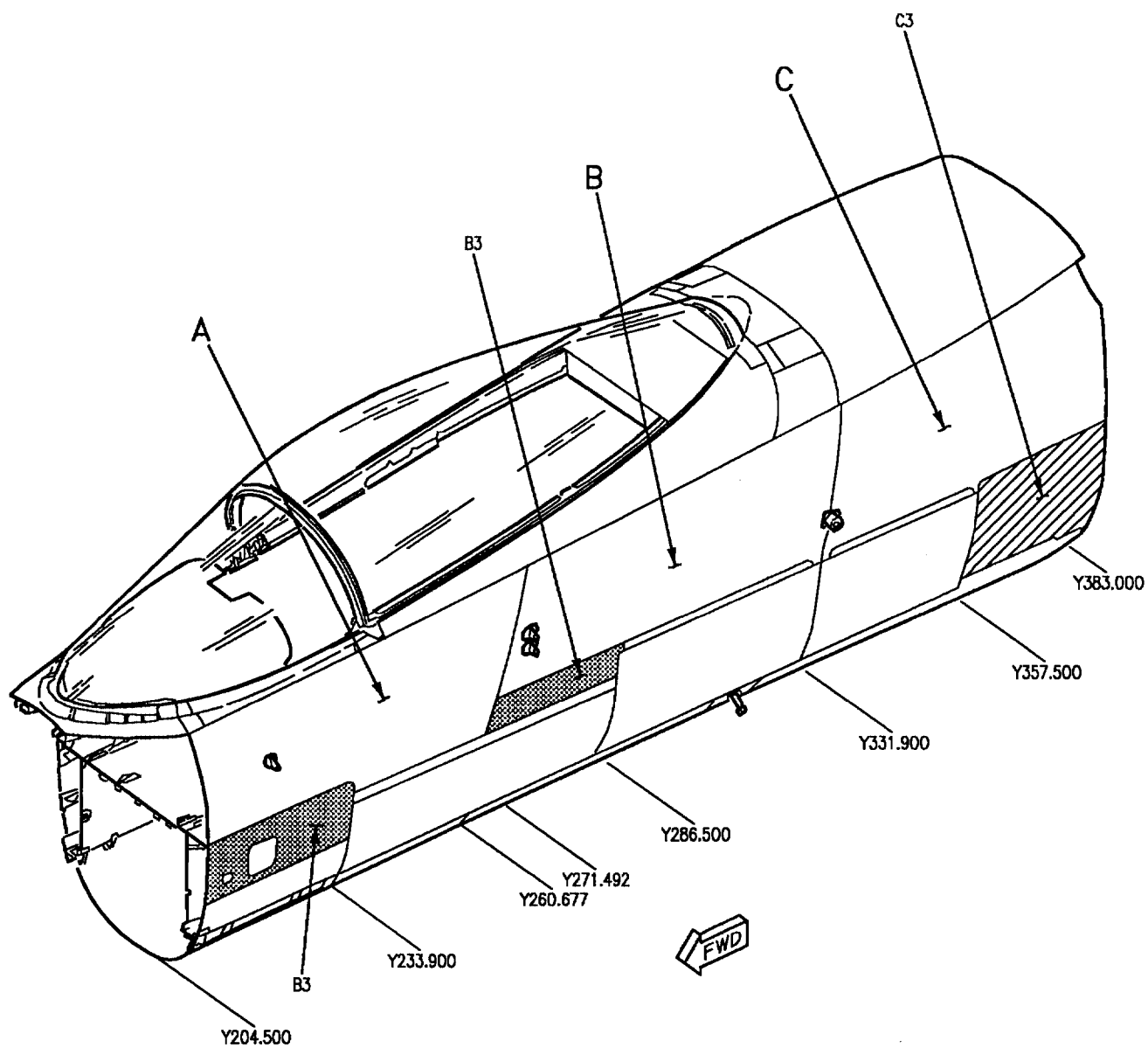


Figure 2. Repair Zones (Sheet 1)

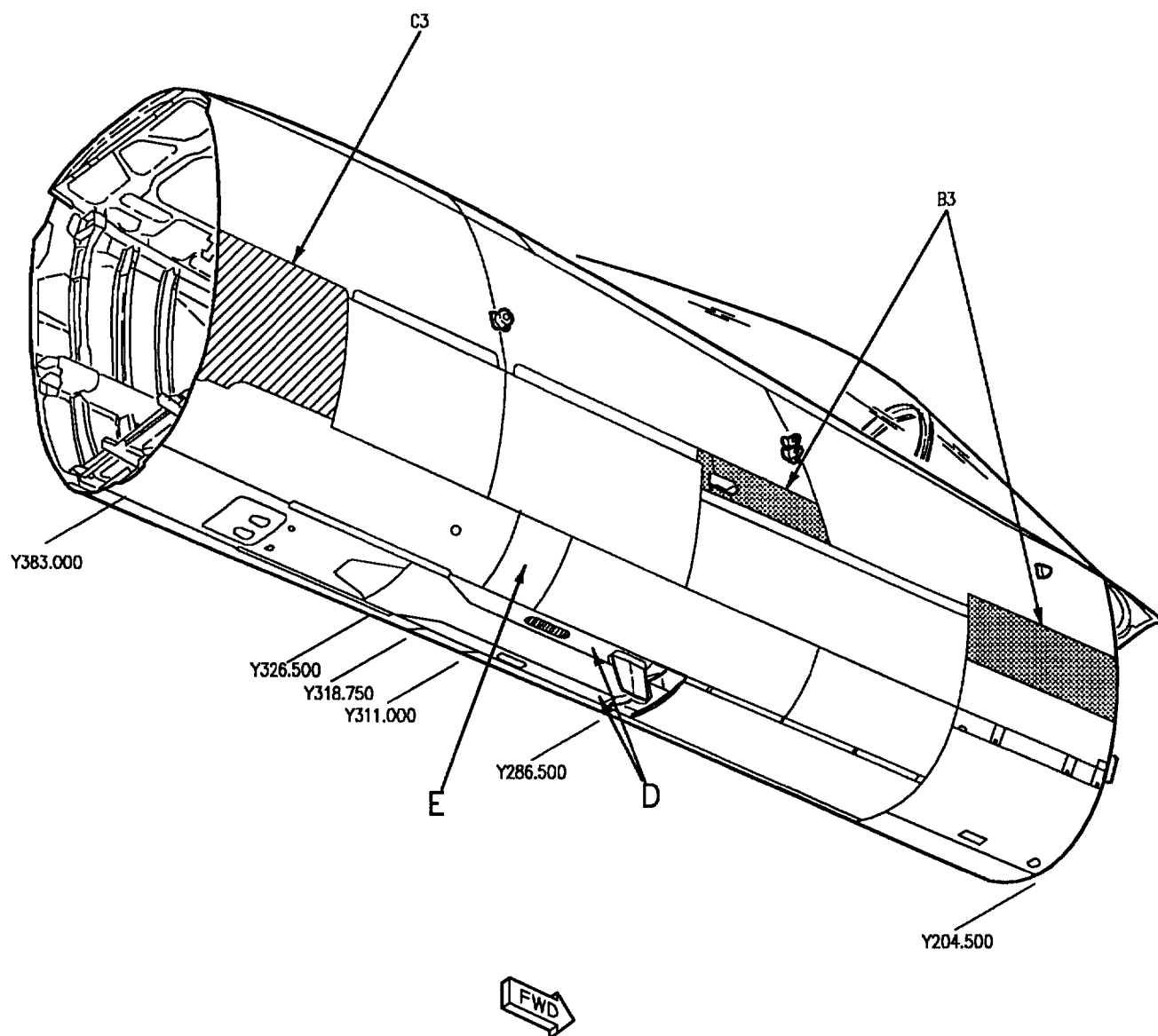


Figure 2. Repair Zones (Sheet 2)

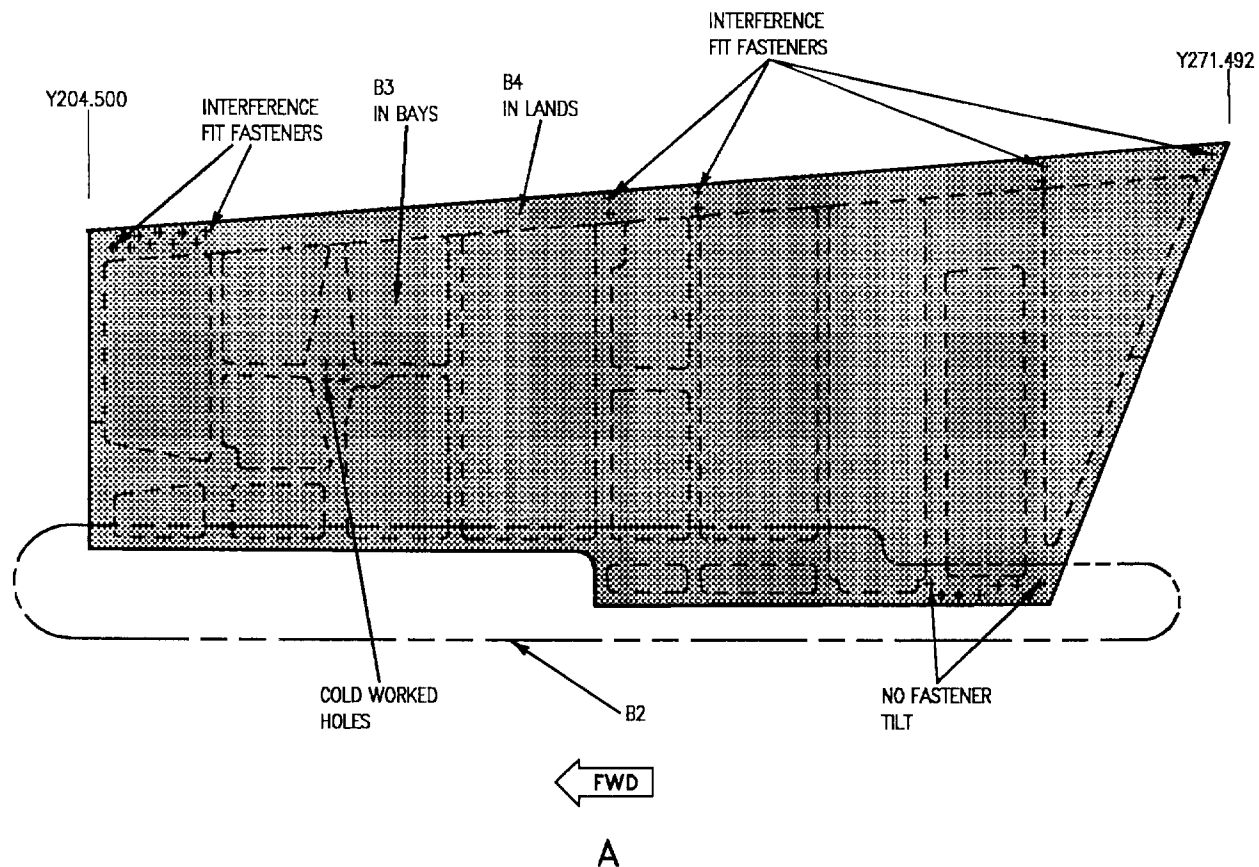
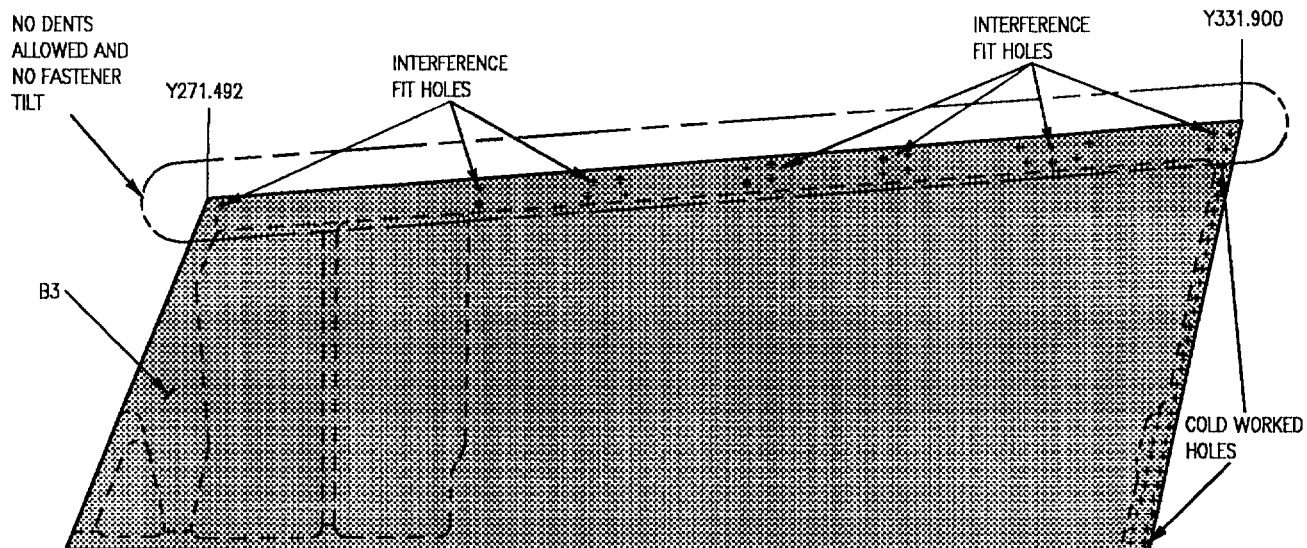
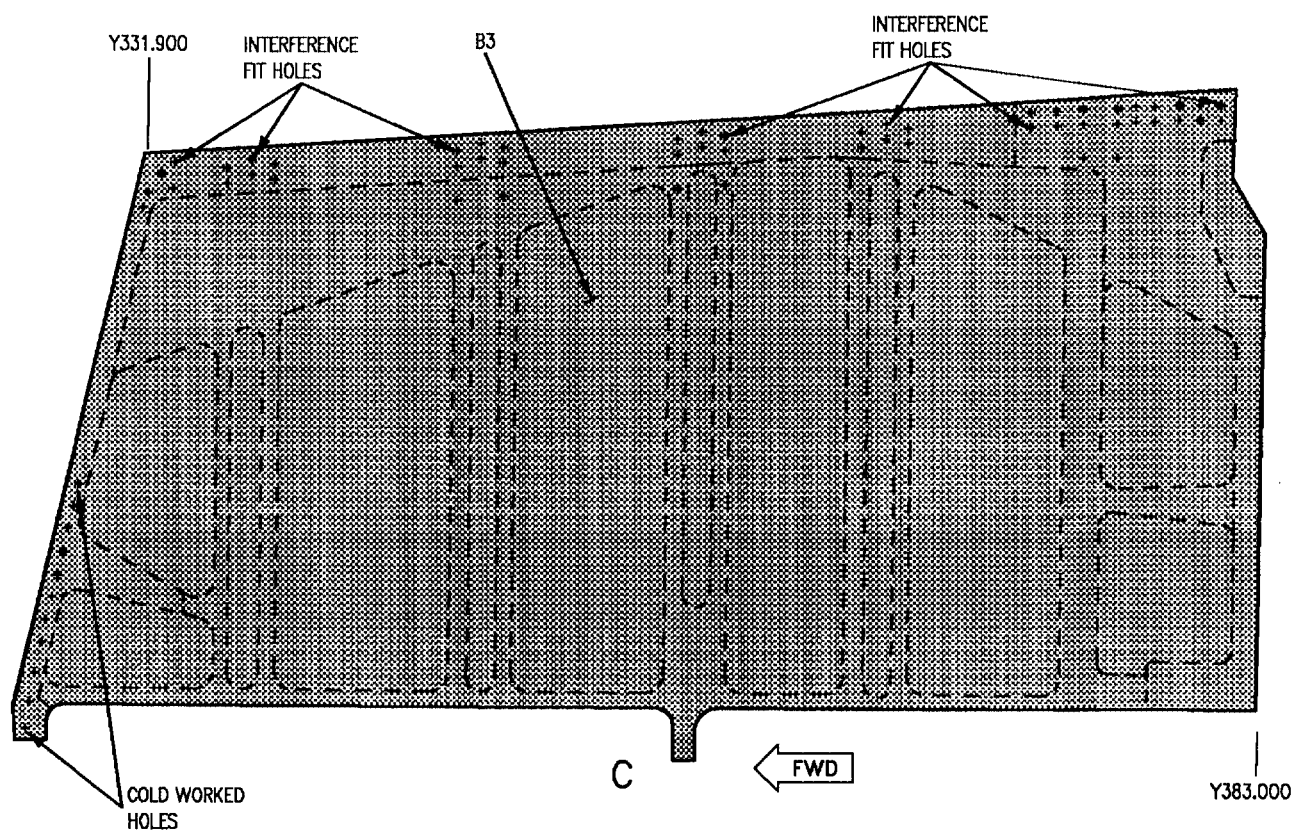
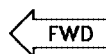


Figure 2. Repair Zones (Sheet 3)



B



C



Figure 2. Repair Zones (Sheet 4)

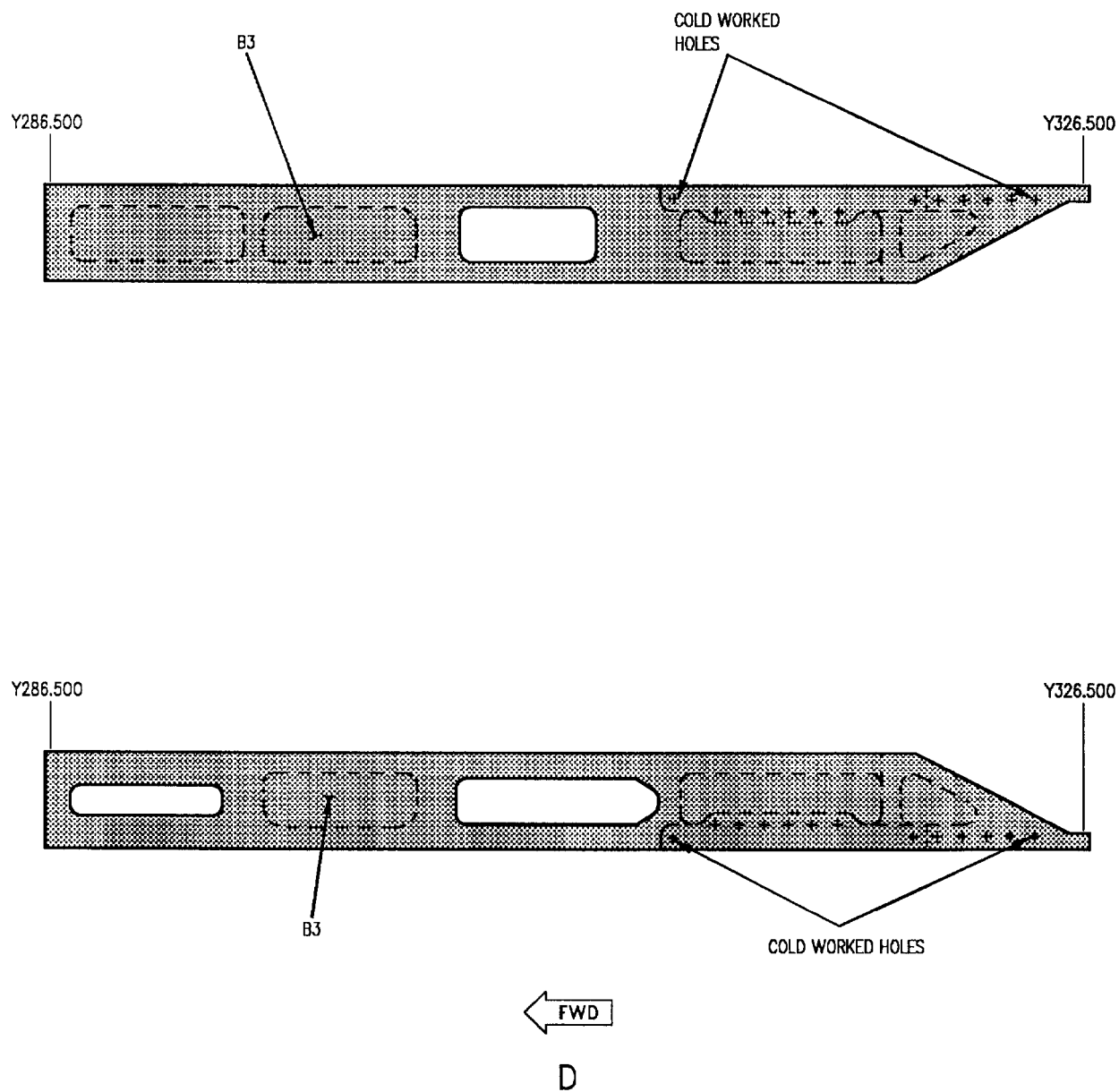
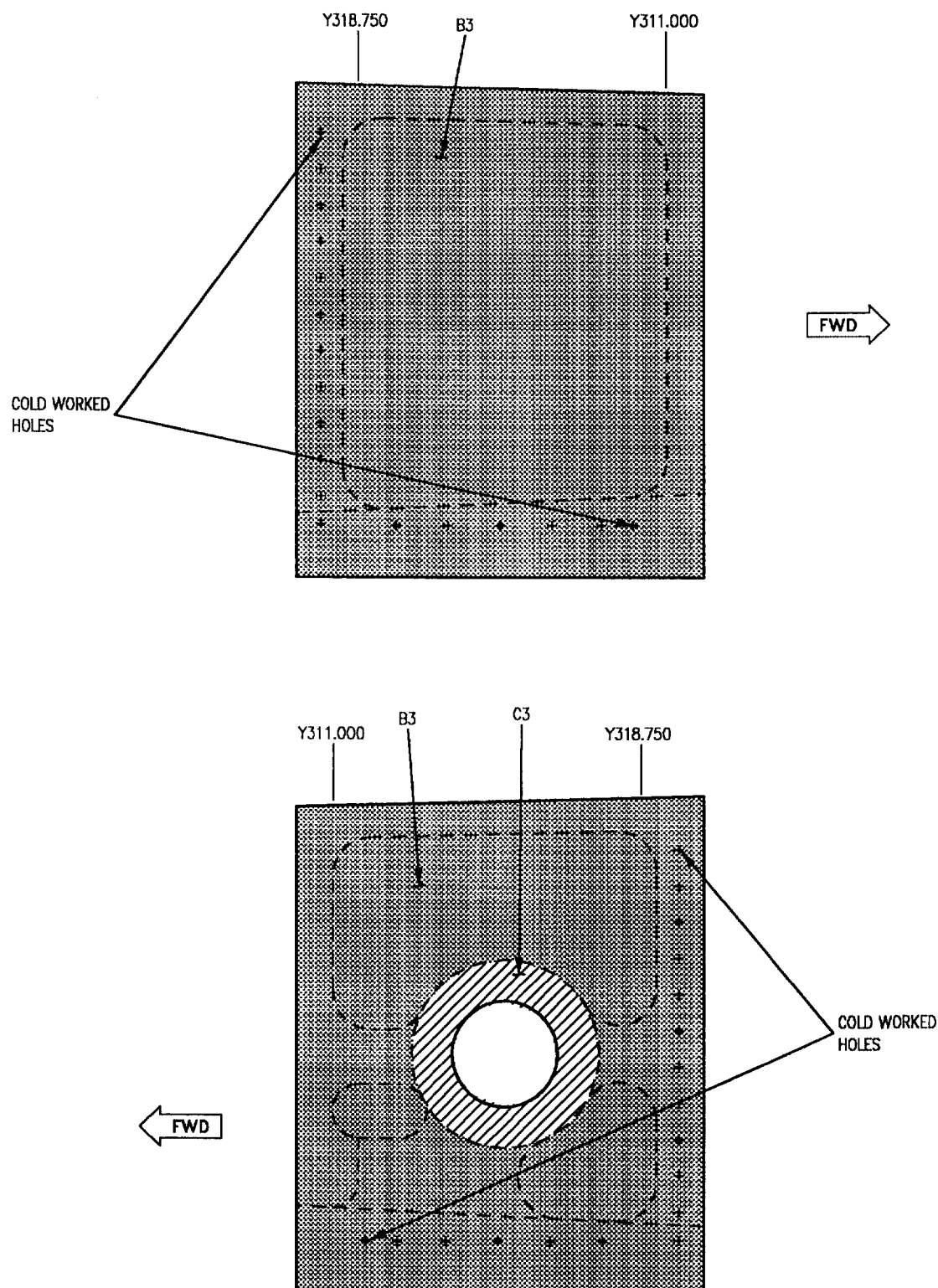
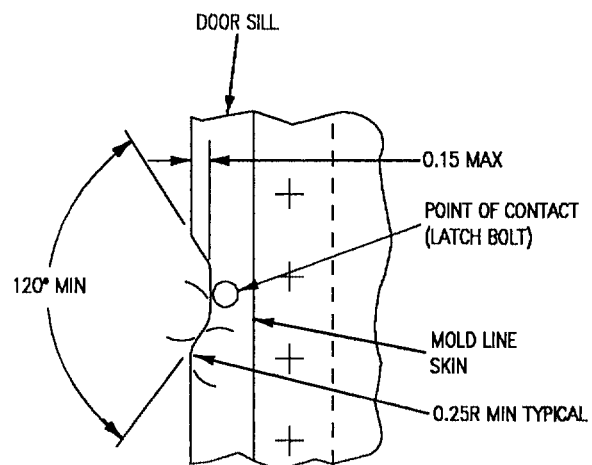


Figure 2. Repair Zones (Sheet 5)

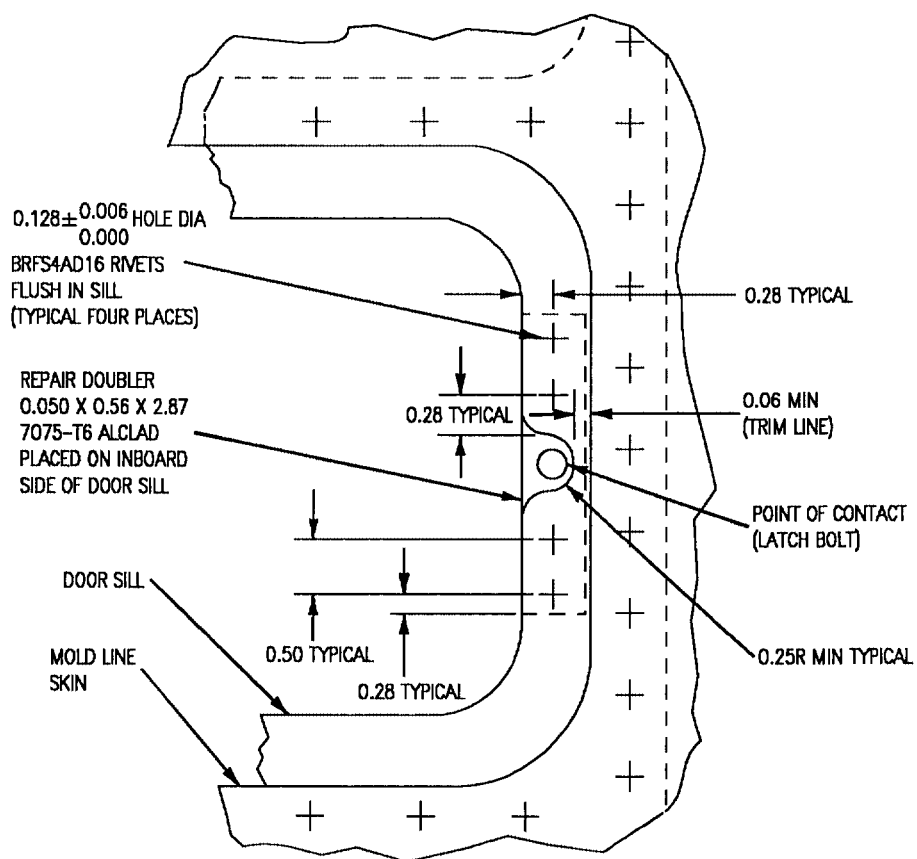


E

Figure 2. Repair Zones (Sheet 6)



A



B

Figure 3. Sill Repair (Door 9)

ORGANIZATIONAL MAINTENANCE**STRUCTURE REPAIR****FORWARD FUSELAGE STRUCTURE****Reference Material**

Structure Repair, General Information	A1-F18AC-SRM-200
Introduction	WP002 00
Adhesive, Cement, and Sealant; Preparation and Application	WP011 00
Structure Repair, Typical Repair	A1-F18AC-SRM-250
Aluminum and Titanium Sheet, Formed Structure	WP033 00
Blending	WP038 00
Aircraft Corrosion Control	A1-F18AC-SRM-500
Aircraft Corrosion Control-Priming Procedures	WP011 00
Form In Place Sealing	WP010 00
Forward Fuselage Main Structure Assembly Finish System and Markings	WP024 00
Windshield, Canopy and Cockpit Finish System	WP021 00
Aircraft Weapons System Cleaning and Corrosion Control	NAVAIR 01-1A-509

Alphabetical Index

Subject	Page No.
Damage Evaluation	2
Negligible Damage	2
Repairable Damage	2
Repairs	2
Permanent Repairs	2
Canopy Actuator Support, Fastener Repair, F/A-18A	3
Cracks	2
Dents	3
Holes	3
Scratches, Nicks, Gouges, or Corrosion	2
Windshield Center Attach Support, 74A350610, Repair	3
Replacement	4
Filler, 74A314338	4

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 27	-	Leading Edge Flap/Control Stick Changes, Incorporation of (ECP MDA-F/A-18-00044C2)	1 Jul 86	-

1. **DAMAGE EVALUATION.** See figures 1 and 2 (F/A-18A), figures 3 and 4 (F/A-18B).

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The types of materials used are shown on figures 1 and 3. Repair zones are shown on figures 2 and 4. Allowable damage limits within repair zones are listed in tables 1 thru 4. Damage not listed or exceeding the following limits require depot engineering disposition.

3. **NEGLIGIBLE DAMAGE.** Negligible damage is damage that may be allowed to exist as is. However, preventive maintenance, for temporary corrosion arrestment, should be done to scratches (NAVAIR 01-1A-509). The types and limits of damage are listed below and in table 1 (F/A-18A), table 3 (F/A-18B). The figure and index numbers in table 1 coincide with the figure and index numbers in the material index of figure 1. The figure and index numbers in table 3 coincide with the figure and index numbers in the material index of figure 3.

a. Scratches are not allowed within one diameter from the edge of any hole.

b. Smooth dents only, effective diameter at least 20 times the depth.

4. **REPAIRABLE DAMAGE.** The types and limits of damage are listed below and in table 2 (F/A-18A), table 4 (F/A-18B). The figure and index numbers in table 2 coincide with figure and index numbers in the material index, figure 1. The figure and index numbers in table 4 coincide with the figure and index numbers in the material index, figure 3.

NOTE

The limits in table 2 and 4, apply after blending the damage.

a. Scratches.

(1) Any scratches within one diameter of any hole must be blended out. Minimum blend out is one diameter from edge of any hole.

(2) Scratches to be blended out with diameter, or width, at surface at least 20 times the depth.

b. Nicks, gouges, and corrosion to be blended out with diameter, or width, at surface at least 20 times the depth.

c. Cracks. All cracks must be repaired.

d. Holes.

(1) Damage in areas free of structure and lands must have edge of cleanup hole at least eight repair fastener diameters from any land, internal structure or existing row of fasteners.

(2) Damage to lands, overstructure, only one repair per land.

e. Dents exceeding the limits in tables 1 and 3 must be repaired.

5. REPAIRS.

6. Types of repairs are temporary, one-time flight, permanent, critical area, alternate and typical. Repair type definition are in structure repair terms (A1-F18AC-SRM-200, WP002 00). Fastener failure on canopy actuator support can be repaired per paragraph 12. Elongated fastener holes in 74A350610 support can be repaired per paragraph 13.

7. PERMANENT REPAIRS.

8. **Scratches, Nicks, Gouges, or Corrosion.** Blend scratches, nicks gouges, or corrosion (A1-F18AC-SRM-250, WP038 00). If after blending, the damage limits of table 2 or 4 are exceeded, repair aluminum sheet. Refinish blended areas (A1-F18AC-SRM-500, WP024 00).

a. Scratches - make crack or hole repairs.

b. Nicks, gouges, or corrosion - make hole or edge repair.

9. **Cracks.** In repair zones A1, A3 and A4, repair cracks in aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

a. Cut out crack.

b. In repair zones A1, A3 and A4, install repair one through six. Select the repair that can be adapted to the damaged part.

c. Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

10. **Holes.** In repair zones A1, A3 and A4, repair holes in aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

a. Cut out hole.

b. In repair zones A1, A3 and A4, install repair one through six. Select the repair that can be adapted to the damaged part.

c. Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

11. **Dents.** In repair zones A1, A3 and A4, repair dents in aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

a. Cut out dent.

b. In repair zones A1, A3 and A4, install repair one through six. Select the repair that can be adapted to the damaged part.

c. Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

12. **Canopy Actuator Support, Fastener Repair, F/A-18A.** See figure 5. If any of the four forward attach fasteners fail, repair by removing existing hardware, all four places, and installing new hardware with radius washers.

Support Equipment Required

Part Number or Type Designation	Nomenclature
-	Torque Wrench, 0 - 150 Inch-Pounds

Materials Required

Specification or Part Number	Nomenclature
AIC763-4-10	Bolt (2)
AIC763-4-12	Bolt (2)
NAS1587A4C	Washer (4)

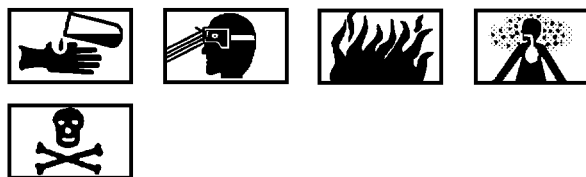
Materials Required (Continued)

Specification or Part Number	Nomenclature
NAS1401-4DS	Radius Washer (6)
AN960C416	Washer (4)
H50609-4	Nut (4)
MIL-S-81733, TYPE 4-12	Sealing Compound

NOTE

Replace fasteners one at a time.

a. Remove existing fasteners.



Sealing Compound, MIL-S-81733, Type 4-12

17

NOTE

Outboard fasteners have only one radius washer, on nut side. Inboard fasteners have radius washers on both sides. Be sure radius on washers are located to match radius on structure.

b. Install bolts, wet with sealing compound, washers, radius washers, and nuts as shown on figure. For fastener sealing (A1-F18AC-SRM-200, WP011 00).

c. Torque bolts 60 to 90 inch-pounds.

d. Apply finish system as required (A1-F18AC-SRM-500, WP021 00).

13. **Windshield Center Attach Support, 74A350610, Repair.** See figure 6. This repair corrects elongated holes in 74A350610 (support). Other repairs to support require depot engineering disposition.

Support Equipment Required

None

Materials Required

Specification or
Part Number

Nomenclature

MIL-S-83430, CLASS A-1/2	Sealing Compound
TT-I-735	Isopropyl Alcohol
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
4M43CP3-008	Bushing (2)



Be sure to maintain existing hole centerline when drilling to prevent fastener hole misalignment.

a. Enlarge elongated holes to 0.3120 +0.0015 -0.0007 inch diameter maintaining existing fastener hole centerline as shown on figure 5.

b. Deburr holes.

c. Clean enlarged holes in support with clean, dry cheesecloth moistened with isopropyl alcohol.

d. Enlarge existing hole in 4M43CP3-008 bushings to 0.250 +0.006 -0.000 inch diameter.

e. Deburr holes.



Isopropyl Alcohol, TT-I-735

2

f. Clean enlarged holes in bushings with clean cheesecloth moistened with isopropyl alcohol.



Sealing Compound, MIL-S-83430, Class A-1/2

3

g. Prepare sealing compound (A1-F18AC-SRM-200, WP011 00).

h. Wet install bushings into support.

i. Clean up any residual sealant with clean cheesecloth moistened with isopropyl alcohol.

j. Apply finish system as required (A1-F18AC-SRM-500, WP021 00).

14. REPLACEMENT.

15. FILLER, 74A314338. See figure 7.

Support Equipment Required

None

Materials Required

Specification or
Part Number

Nomenclature

CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-I-735	Isopropyl Alcohol
MIL-S-83430, CLASS A-1/2	Sealing Compound
BRFS4T5	Rivet (2)
BRFS4T6	Rivet (8)
BRFS4T7	Rivet (3)
RV1241-3-4	Rivet (2)

a. Remove fasteners attaching filler to mating structure.

b. Remove damaged filler.



Isopropyl Alcohol, TT-I-735

2

c. Clean all residual sealing compound from mating structure with plastic scraper and cheesecloth moistened with isopropyl alcohol.

d. Apply primer coating as required to areas where filler was removed (A1-F18AC-SRM-500, WP011 00).

e. Locate new filler.

f. Mate drill holes in filler using existing holes in mating structure as a guide.

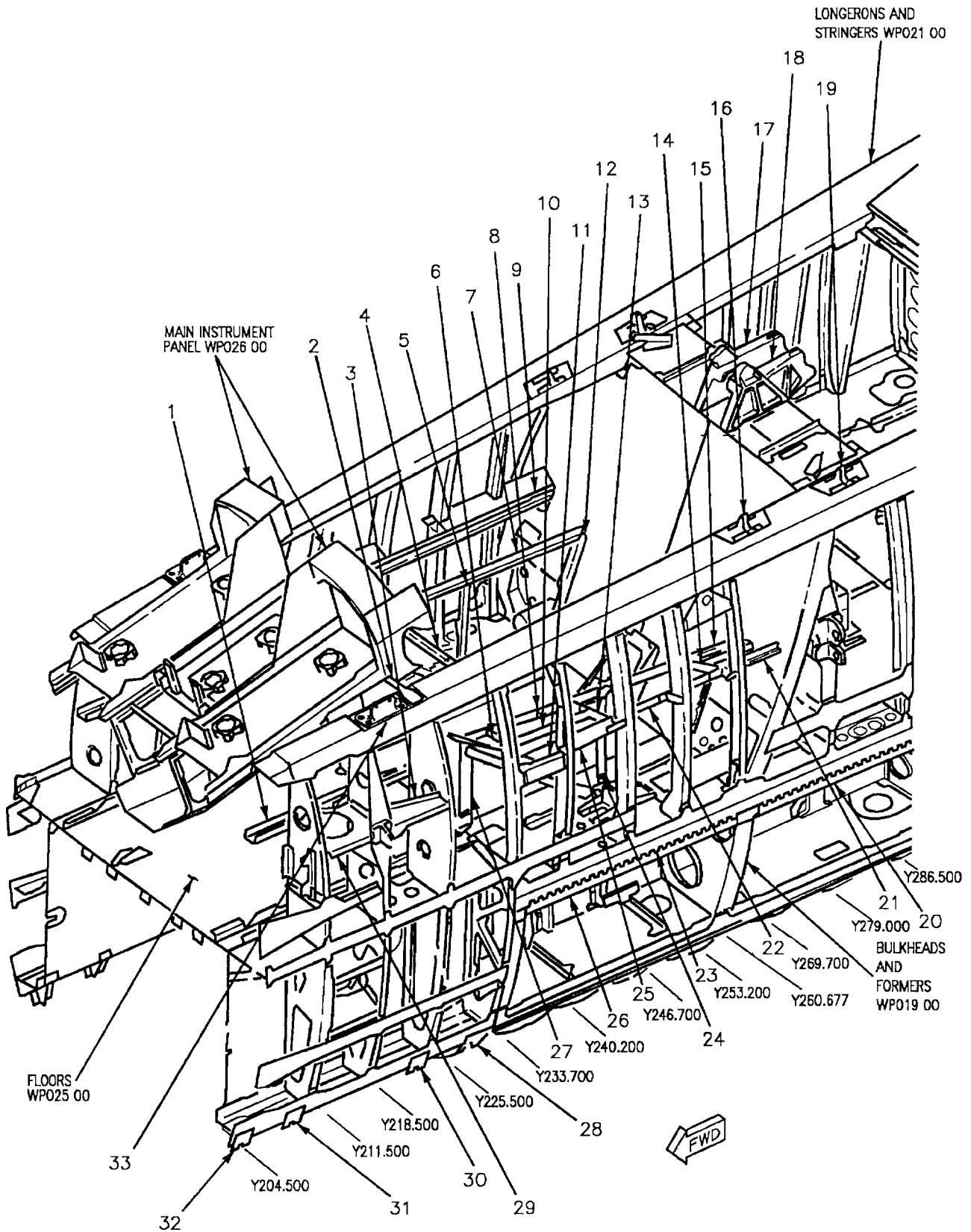


Figure 1. Material Index - F/A-18A (Sheet 1)

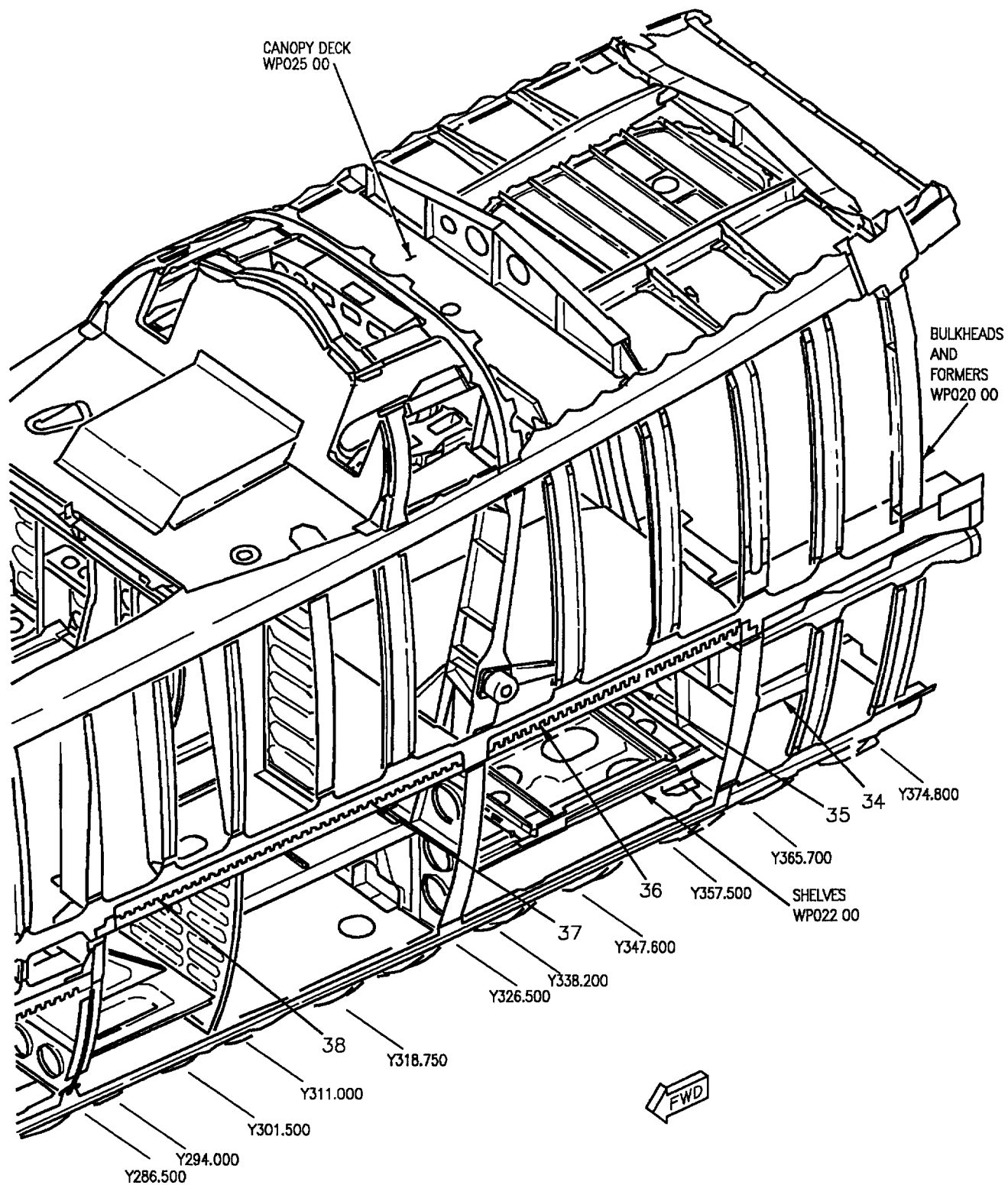
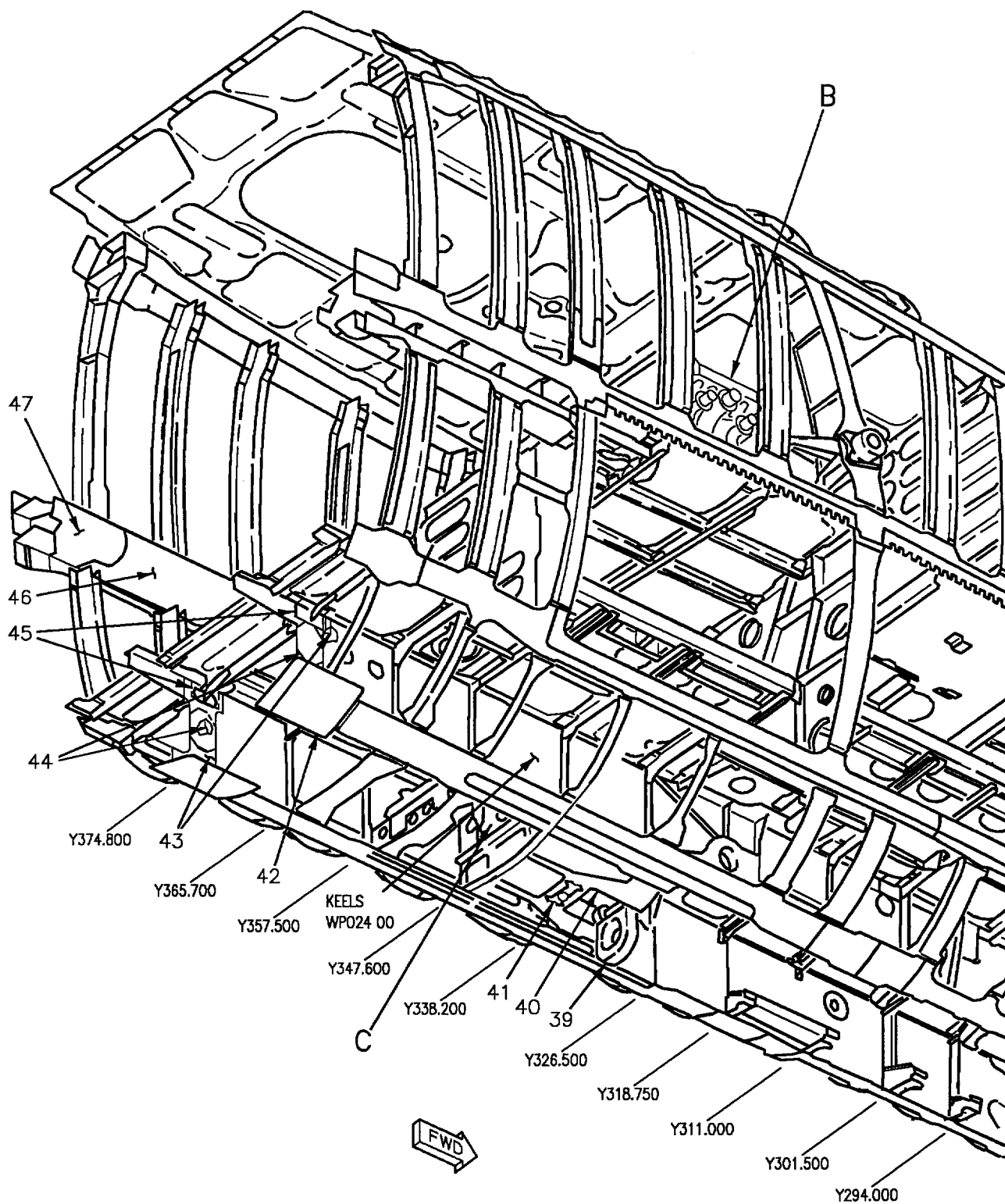


Figure 1. Material Index - F/A-18A (Sheet 2)



18AC-SRM-221-(87-3)01-SCAN

Figure 1. Material Index - F/A-18A (Sheet 3)

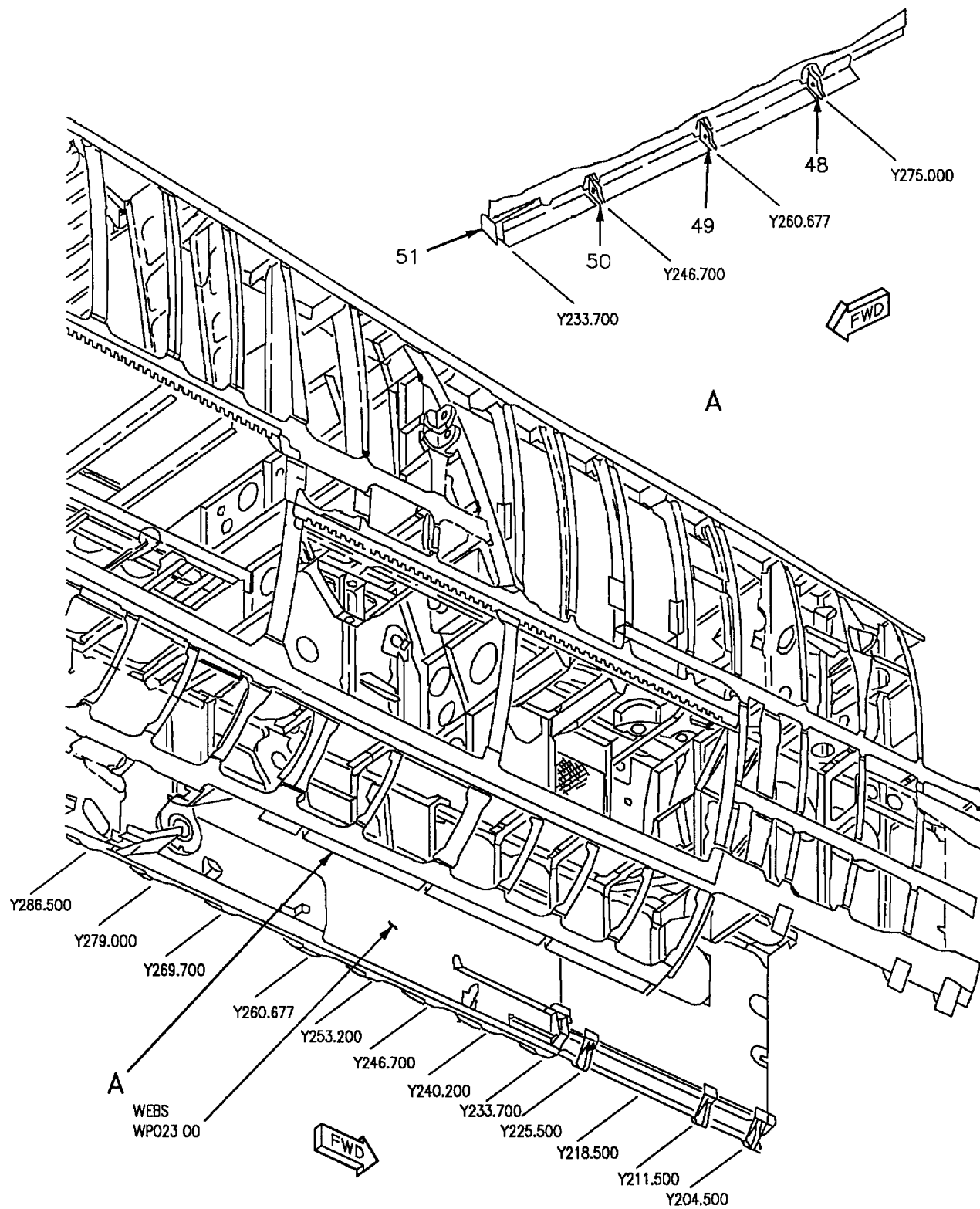


Figure 1. Material Index - F/A-18A (Sheet 4)

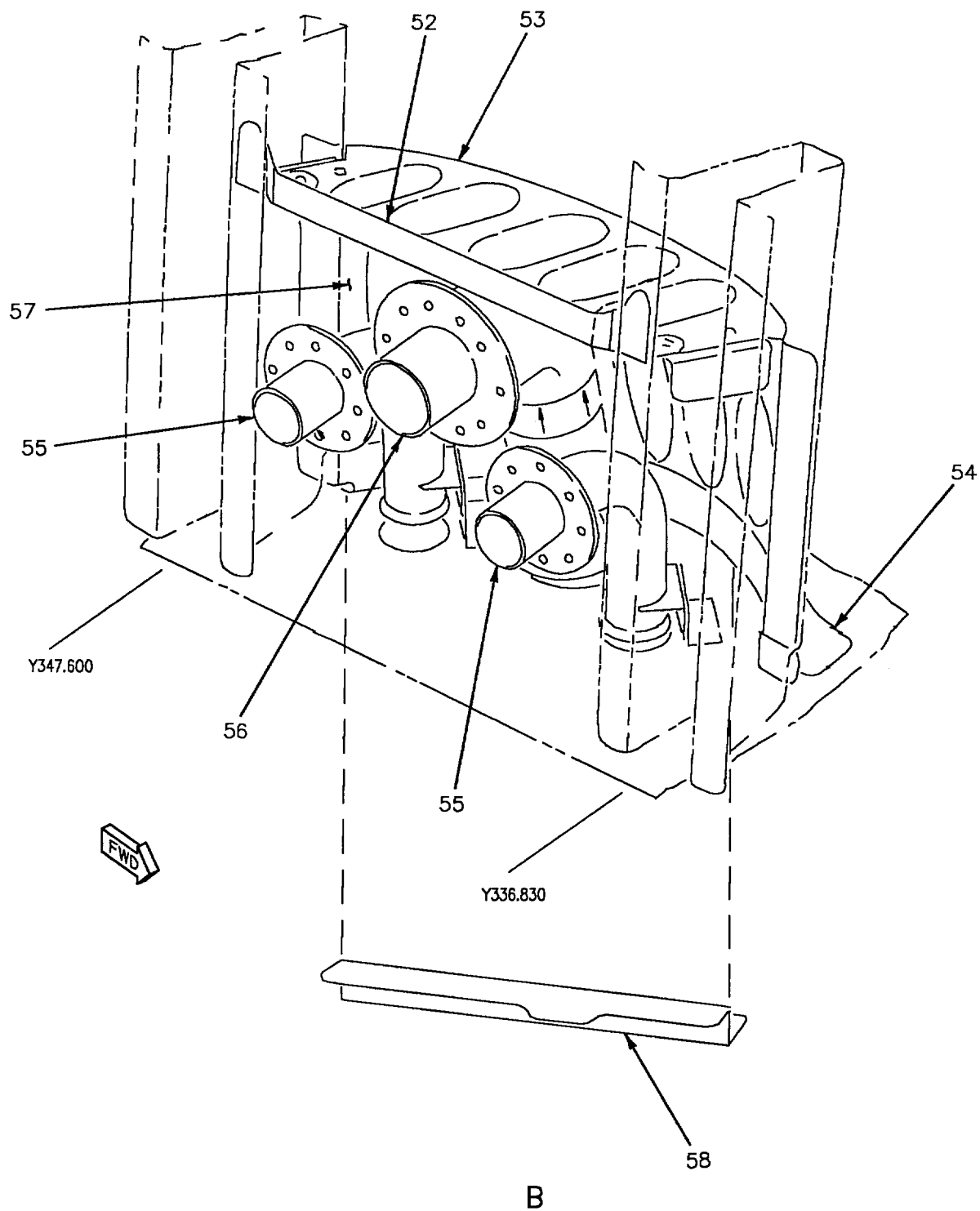


Figure 1. Material Index - F/A-18A (Sheet 5)

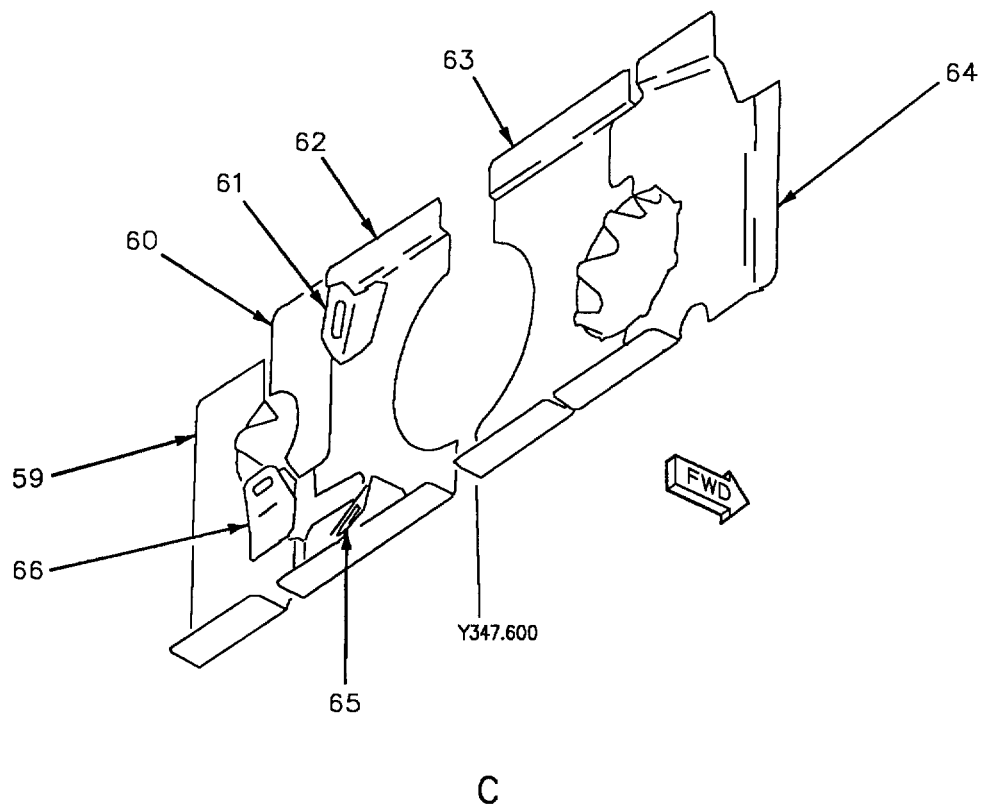


Figure 1. Material Index - F/A-18A (Sheet 6)



















Idx No.	Eft	Nomenclature and Part No.	Description	Material
1	  	Channel 74A314031-2023, -2024 74A314031-2023, -9013 74A314031-2023, -2027	0.063 Sheet	7075-T6 Alclad
2		Support 74A314614-2001	0.140 Sheet	6Al-4V Ti Anl
3	  	Support 74A314031-2019, -2020 74A314031-2019, -9009 74A314031-2019, -2029	0.050 Sheet	7075-T6 Alclad
4	 	Angle 74A800015-2037 74A800015-2071	0.063 Sheet	7075-T6 Alclad
5	 	Angle 74A800015-2039 74A800015-2073	0.050 Sheet	7075-T6 Alclad
6		Beam 74A800014-2137	0.080 Sheet	7075-T6 Al Aly
7		Beam 74A800015-2059	ST9M571-86 Strip	7075-T76511 Al Aly
8		Beam 74A800014-2107	ST9M571-86 Strip	7075-T7611 Al Aly
9		Beam 74A800015-2033	1MA120D05-10281 Extr	7075-T73511 Al Aly
10	 	Beam 74A8000014-2095 74A8000014-2133	0.080 Sheet	7075-T6 Al Aly
11		Stringer 74A314043-2009, -2010	0.050 Sheet	7075-T6 Alclad
12		Angle 74A314336-2093	0.050 Sheet	7075-T6 Alclad
13	 	Beam 74A800014-2081 74A800014-2135	0.080 Sheet	7075-T6 Al Aly
14	  	Beam 74A800014-2067 74A800014-2109 74A800014-2099	0.080 Sheet	7075-T6 Al Aly

Figure 1. Material Index - F/A-18A (Sheet 7)









Idx No.	Eft	Nomenclature and Part No.	Description	Material
15		Support 74A800014-2097 74A800014-2121	0.050 Sheet	7075-T6 Al Aly
16 L/R		Retainer 74A350731-2007	Forging	Cres
17		Support 74A314052-2013	Pressing	7075-T73 Al Aly
18		Support 74A314049-2009	Pressing	7075-T73 Al Aly
19 L/R		Retainer 74A350733-2003	Forging	Cres
20		Seal 74A314445-2007, -2004 74A314445-2011, -2012	0.040 Sheet	7075-T6 Alclad
21		Beam 74A800014-2125	1MA100D05-10286 Extr	7075-T73511 Al Aly
22		Beam 74A800014-2073 74A800014-2143	1MA120D05-10281 Extr	7075-T73511 Al Aly
23		Leaf Hinge 74A314444-2001, -2002	1MA10466D05 Extr	7075-T73511 Al Aly
24		Angle 74A800014-2115	0.050 Sheet	7075-T6 Al Aly
25		Beam 74A800014-2091 74A800014-2149	0.050 Sheet	7075-T6 Al Aly
26		Seal 74A314445-2005, -2006 74A314445-2009, -2010	0.040 Sheet	7075-T6 Alclad
27		Tee 74A800014-9011 74A800014-2119	1MA160D05-10397	7075-T73511 Al Aly
28 L R		Hinge Half 74A314256-2009  74A314378-2005 	1MA10504D06 Extr Machining	7075-T76511 Al Aly 7075-T7351 Al Aly
29		Support 74A314031-2013, -2014	0.050 Sheet	7075-T6 Al Aly

Figure 1. Material Index - F/A-18A (Sheet 8)











Idx No.	Eft	Nomenclature and Part No.	Description	Material
30		Hinge Half  74A314373-2007, -2008	1MA10504D06 Extr	7075-T76511 Al Aly
31		Hinge Half  74A314373-2006, -2006	1MA10504D06 Extr	7075-T76511 Al Aly
32		Hinge Half  74A314372-2007, -2008	1MA10504D06 Extr	7075-T76511 Al Aly
33		Support 74A350610-2001	1MA10327D05 Extr	7075-T73511 Al Aly
34		Stiffener 74A314401-2001	Machining	7075-T7351 Al Aly
35	 	Seal 74A314443-2001, -2002 74A314443-2003, -2004	1MA10469D01 Extr 1MA10469D06 Extr	7075-T76 Al Aly 7075-T76511 Al Aly
36		Leaf Hinge 74A314440-2003, -2004	1MA10465D05 Extr	7075-T73511 Al Aly
37	  	Seal 74A314438-2005, -2002 74A314438-2009, -2010 74A314438-2013, -2014	1MA10469D01 Extr	7075-T76 Al Aly
38		Leaf Hinge 74A314439-2003, -2004	1MA10464D05 Extr	7075-T73511 Al Aly
39	 	Shackle 74A314667-2003 74A314667-2007	Forging Forging	Steel Alloy Cres
40		Support 74A314617-2005	Forging	7076-T76 Al Aly
41		Adapter 74A314658-2001	Machining	Cres
42		Strap 74A314707-2001, -2002	0.140 Sheet	6Al-4V Ti Anl
43		Plate 74A314709-2001	0.080 Sheet	6Al-4V Ti Anl
44		Plate 74A314709-2003	0.050 Sheet	6Al-4V Ti Anl
45		Angle 74A314709-2005	0.125 Sheet	7075-T76 Alclad
46		Cover 74A314329-2003, -2004	0.063 Sheet	7075-T6 Al Aly

Figure 1. Material Index - F/A-18A (Sheet 9)























Idx No.	Eft	Nomenclature and Part No.	Description	Material
47	 	Cover 74A314328-2003, -2004 74A314328-2007, -2008	 Sheet	7075-T76 Al Aly
48	 	Support  74A314253-2007 74A314253-2013	1MA122D05-10023 Extr	7075-T73511 Al Aly
49		Support  74A314253-2015	1MA122D05-10023 Extr	7075-T73511 Al Aly
50		Support  74A314253-2017	1MA122D05-10023 Extr	7075-T73511 Al Aly
51		Support  74A314254-2009	Machining	7075-T7351 Al Aly
52		Angle 74A314936-2005	0.063 Sheet	7075-T6 Alclad
53		Cover 74A314936-2003	0.071 Sheet	7075-T6 Alclad
54		Angle 74A314936-2007	0.071 Sheet	7075-T6 Alclad
55		Conduit Assembly 74A314934-1001	1.125 Tube	6061-T62 Al Aly
56		Duct 74A831255-2003	Casting	A356-T61 Al Aly
57		Enclosure 74A314936-2023	0.071 Sheet	7075-T6 Alclad
58		Zee 74A314936-2015	0.080 Sheet	7075-T6 Alclad
59		Shield 74A314447-2027	0.050 Sheet	6061-T6 Al Aly
60	 	Shield 74A314447-2023 74A314447-2037	0.032 Sheet	6061-T6 Al Aly
61	 	Bracket 74A314447-2015 74A314447-2039	0.063 Sheet	7075-T6 Alclad 6061-T6 Al Aly
62	 	Shield 74A314447-2009 74A314447-2033	0.050 Sheet	6061-T6 Al Aly

Figure 1. Material Index - F/A-18A (Sheet 10)




































Idx No.	Eft	Nomenclature and Part No.	Description	Material
63	 	Shield 74A314447-2031 74A314447-2035	0.032 Sheet	6061-T6 Al Aly
64		Shield 74A314447-2029	0.040 Sheet	6061-T6 Al Aly
65		Bracket 74A314447-2013	0.063 Sheet	7075-T6 Alclad
66		Bracket 74A314447-2011	0.063 Sheet	7075-T6 Alclad
LEGEND				
	F/A-18A 161353 THRU 161715.			
	F/A-18A 161716 THRU 161744.			
	F/A-18A 161353 THRU 161519 BEFORE F18 AFC 027.			
	F/A-18A 161353 THRU 161928.			
	F/A-18A 161929 AND UP.			
	F/A-18A 161353.			
	F/A-18A 161358 AND UP.			
	F/A-18A 161520 AND UP; ALSO 161353 THRU 161519 AFTER F18 AFC 027.			
	F/A-18A 161745 AND UP.			
	F/A-18A 161716 THRU 161761.			
	F/A-18A 161925 AND UP.			
	Two M81934-1-04A008 bushings required.			
	Two M81934-1-05A008 bushings required.			
	Two NAS76A4-004P bushings required.			
	F/A-18A 161353 THRU 161944, 161949, 161954, 161957, 161961, 161964, 161968, 161971, 161973, 161976, 161979.			
	F/A-18A 161945 THRU 161948, 161950 THRU 161953, 161955, 161956, 161958 THRU 161960, 161962, 161963, 161965 THRU 161967, 161969, 161970, 161972, 161974, 161975, 161977, 161978, 161980 AND UP.			
	F/A-18A 161353 THRU 162471, 162473, 162476.			
	F/A-18A 162472, 162474, 162475, 162477 AND UP.			
	F/A-18A 161353 THRU 162863.			
	F/A-18A 162865 THRU 163145.			
	Land is 0.140, bays are 0.063.			
	F/A-18A 162394 AND UP.			
	F/A-18A 163146 AND UP.			
	F/A-18A 161353 THRU 162909.			
	F/A-18A 163092 AND UP.			
	F/A-18A 161353 THRU 161528.			
	F/A-18A 161702 AND UP.			
	F/A-18A 161353 THRU 161359.			
	F/A-18A 161361 THRU 161528.			
	F/A-18A 161361 AND UP.			
	F/A-18A 161353 THRU 161987.			
	F/A-18A 161353 THRU 161520.			
	F/A-18A 161521 AND UP.			

Figure 1. Material Index - F/A-18A (Sheet 11)

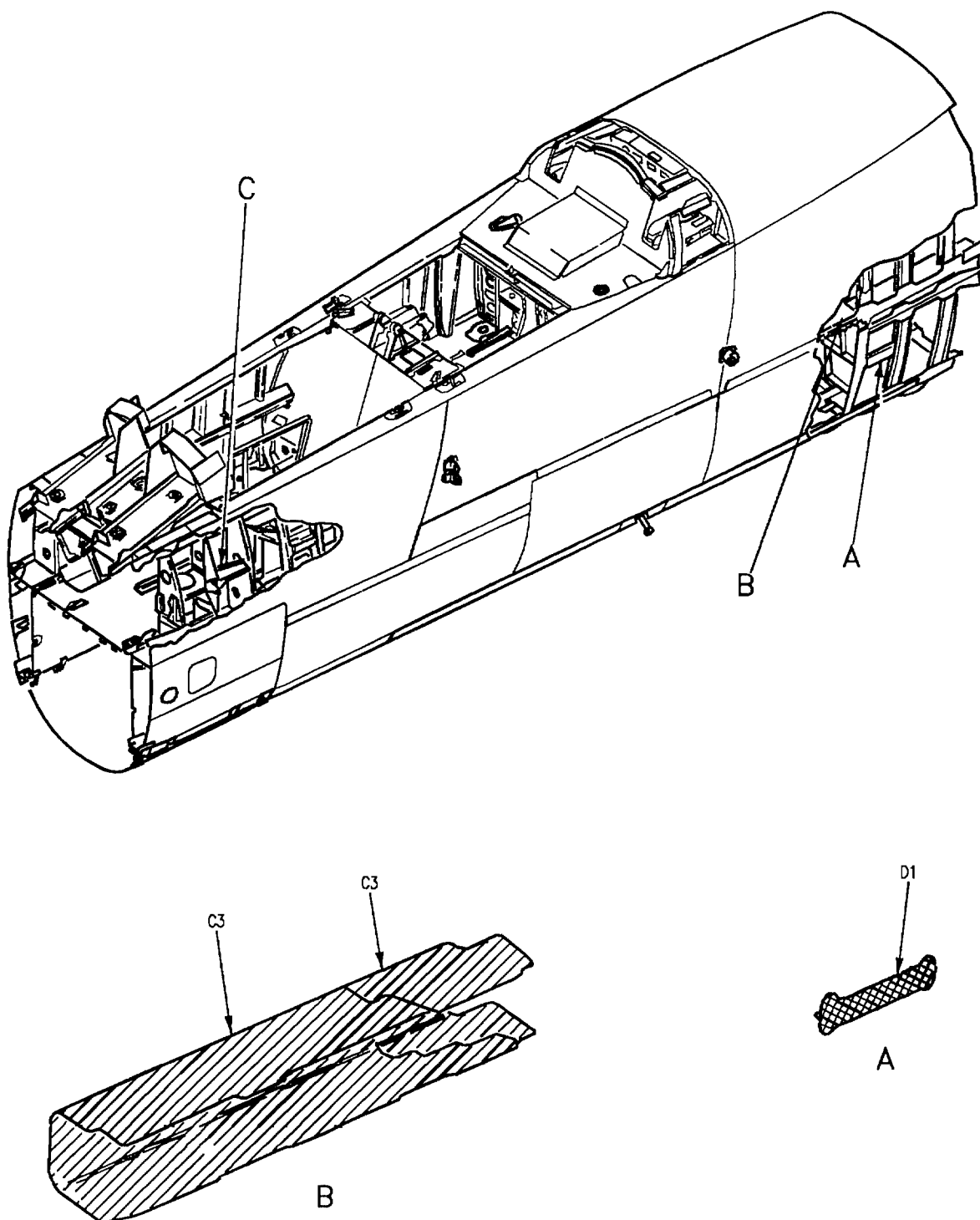


Figure 2. Repair Zones - F/A-18A (Sheet 1)

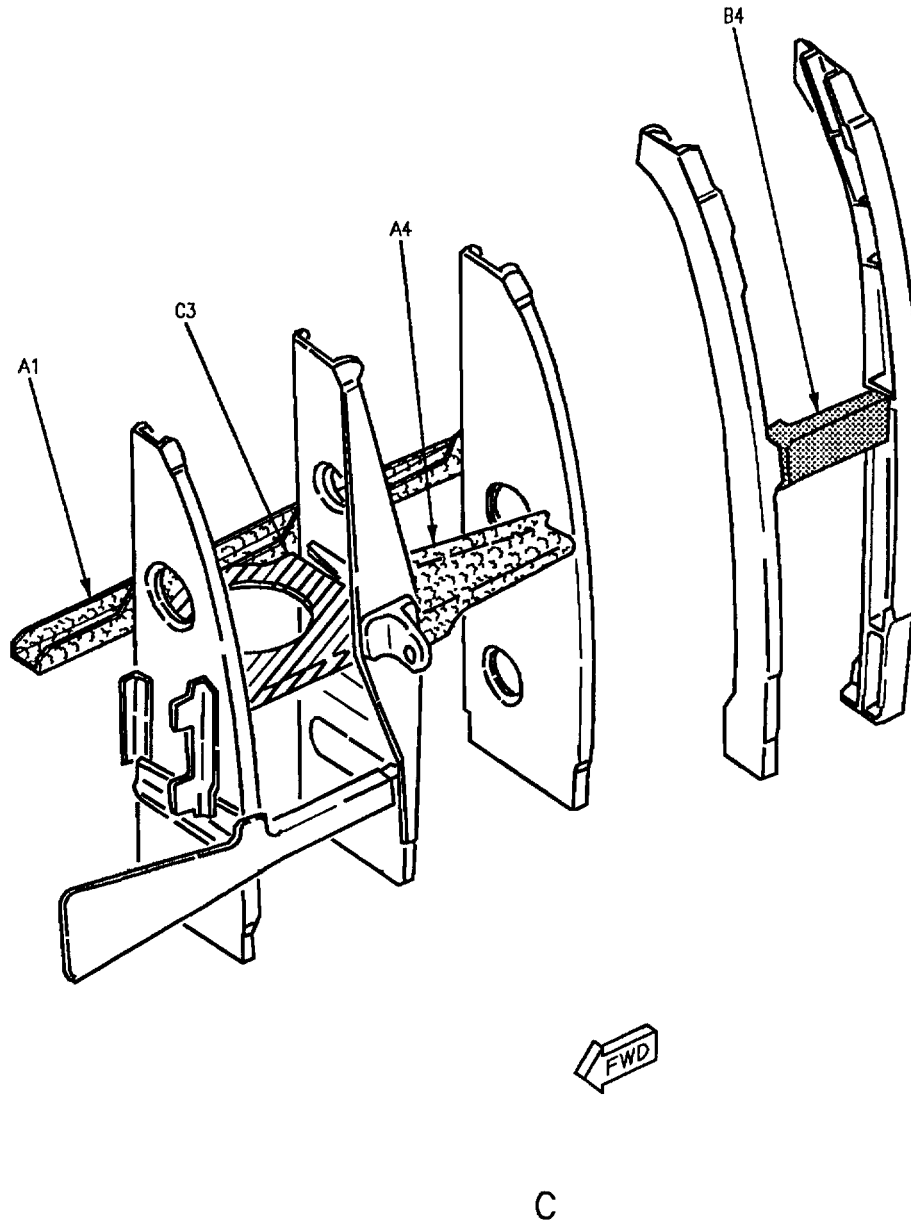


Figure 2. Repair Zones - F/A-18A (Sheet 2)

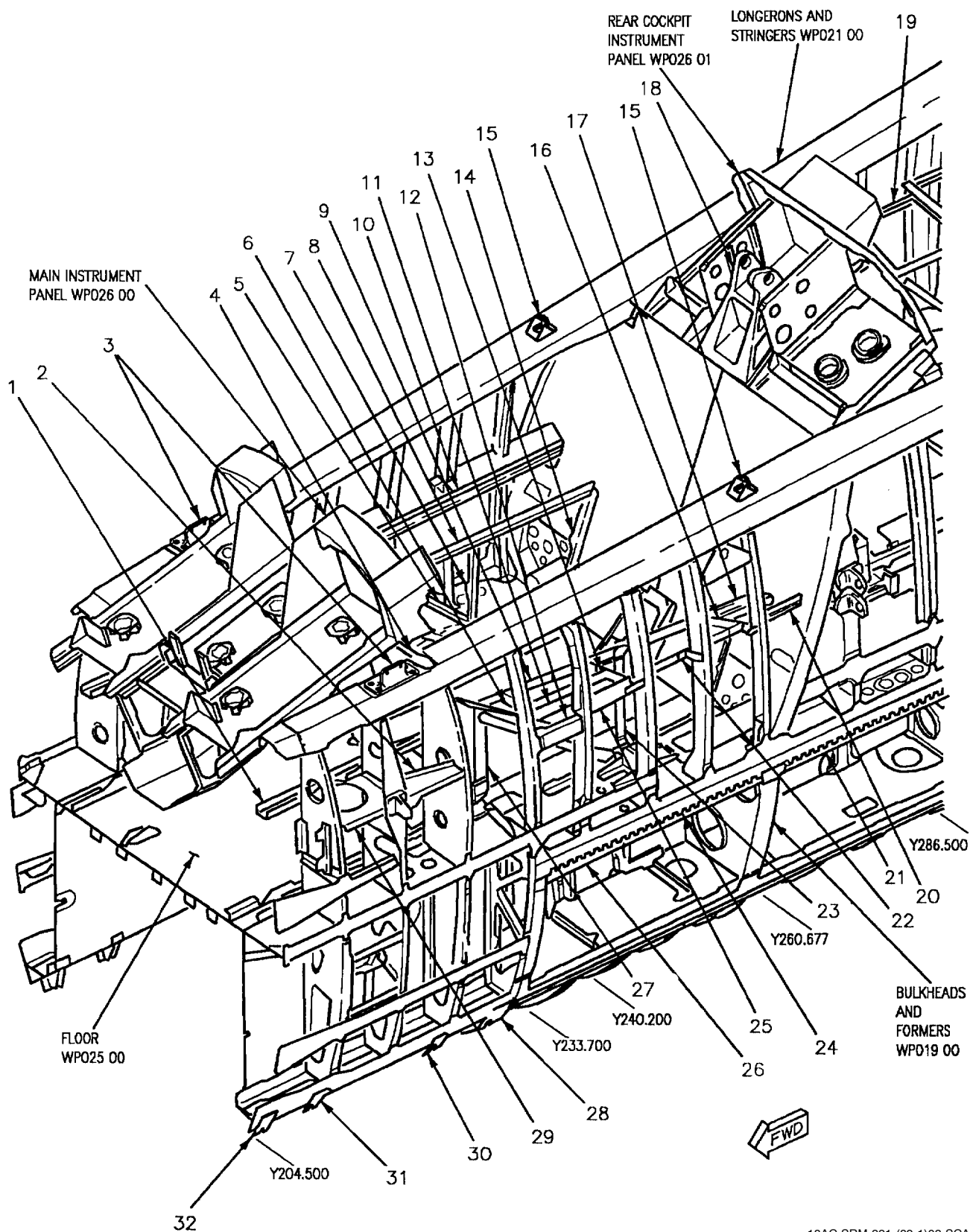


Figure 3. Material Index - F/A-18B (Sheet 1)

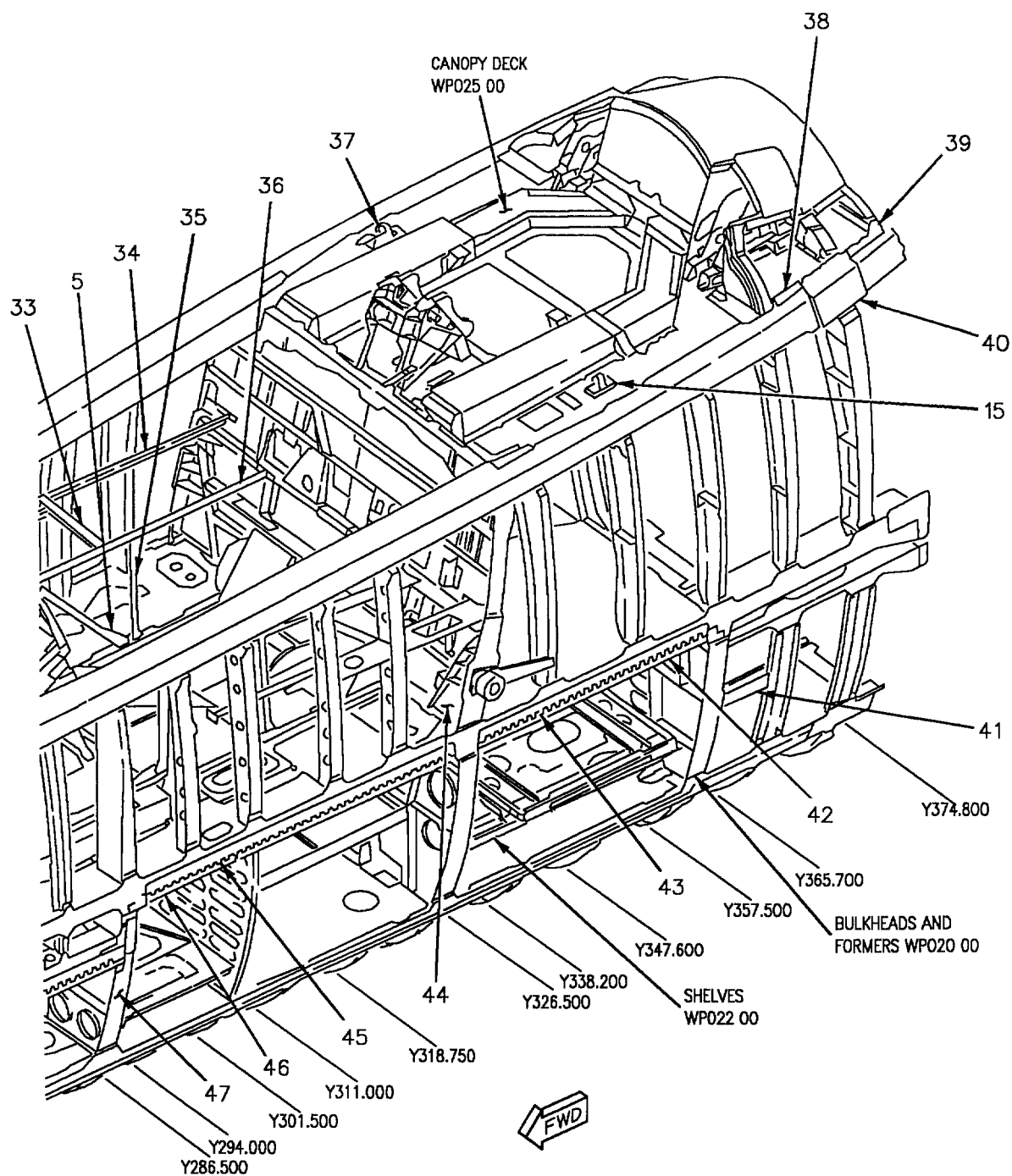


Figure 3. Material Index - F/A-18B (Sheet 2)

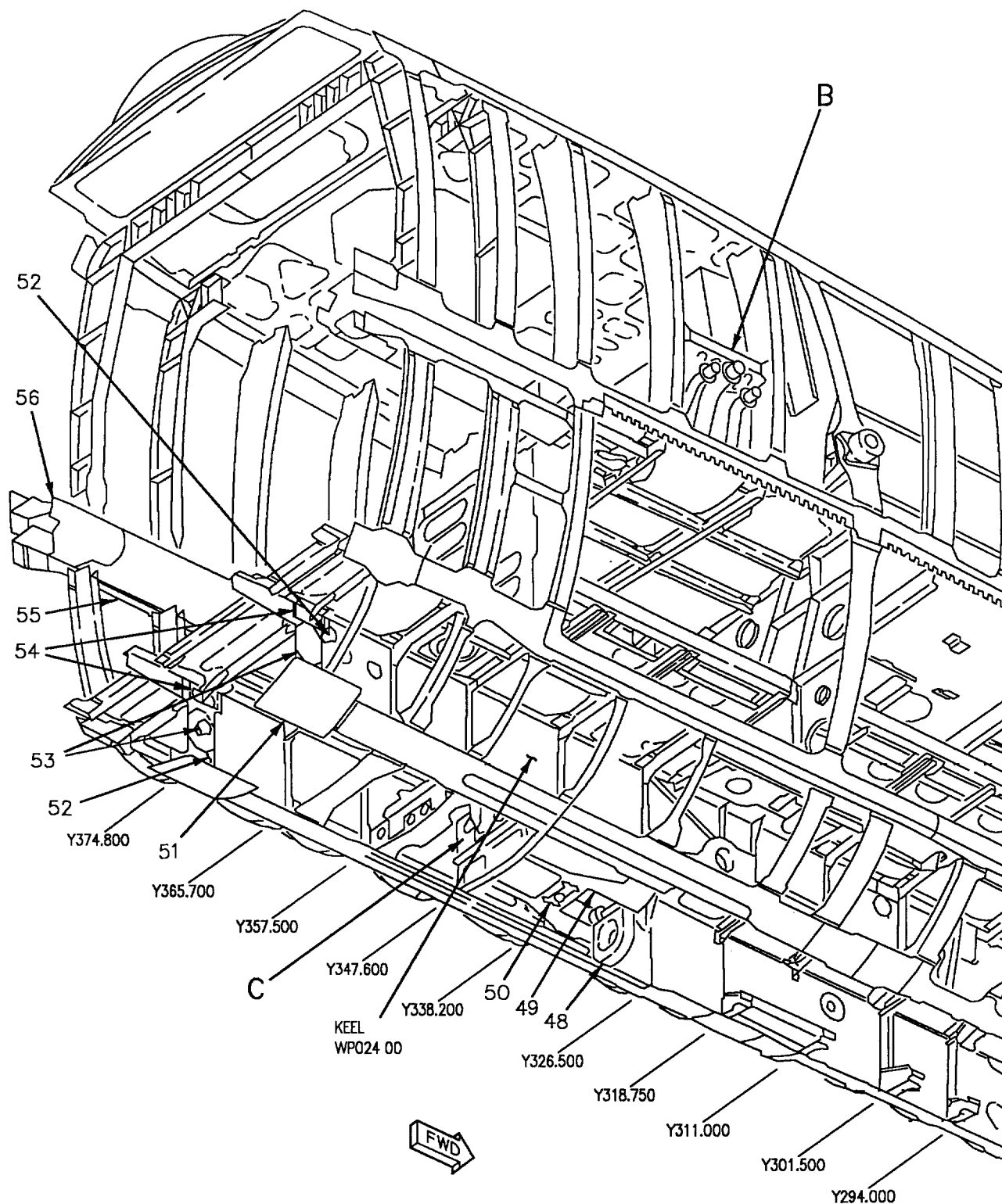
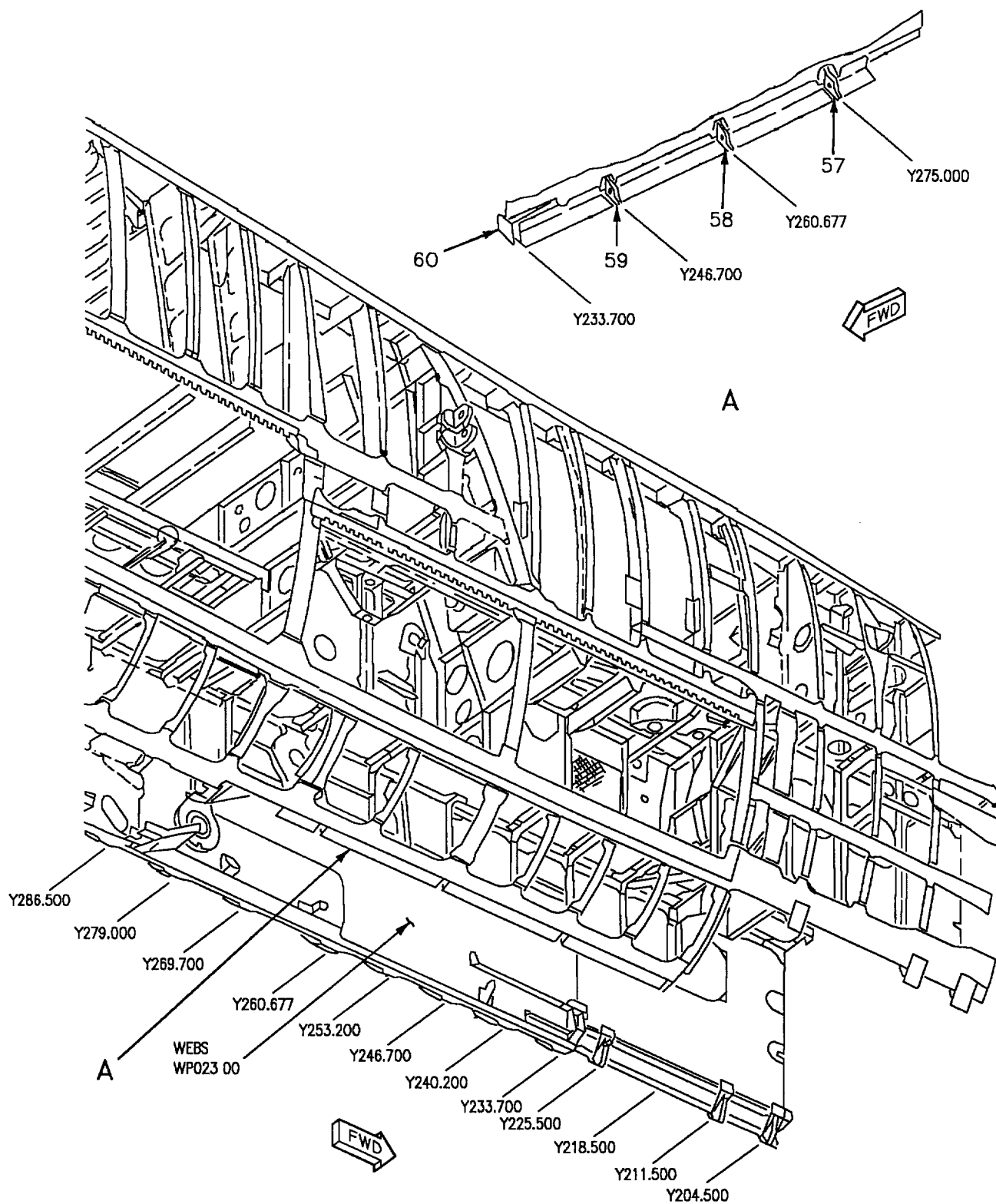


Figure 3. Material Index - F/A-18B (Sheet 3)



18AC-SRM-221-(89-4)01-SCAN

Figure 3. Material Index - F/A-18B (Sheet 4)

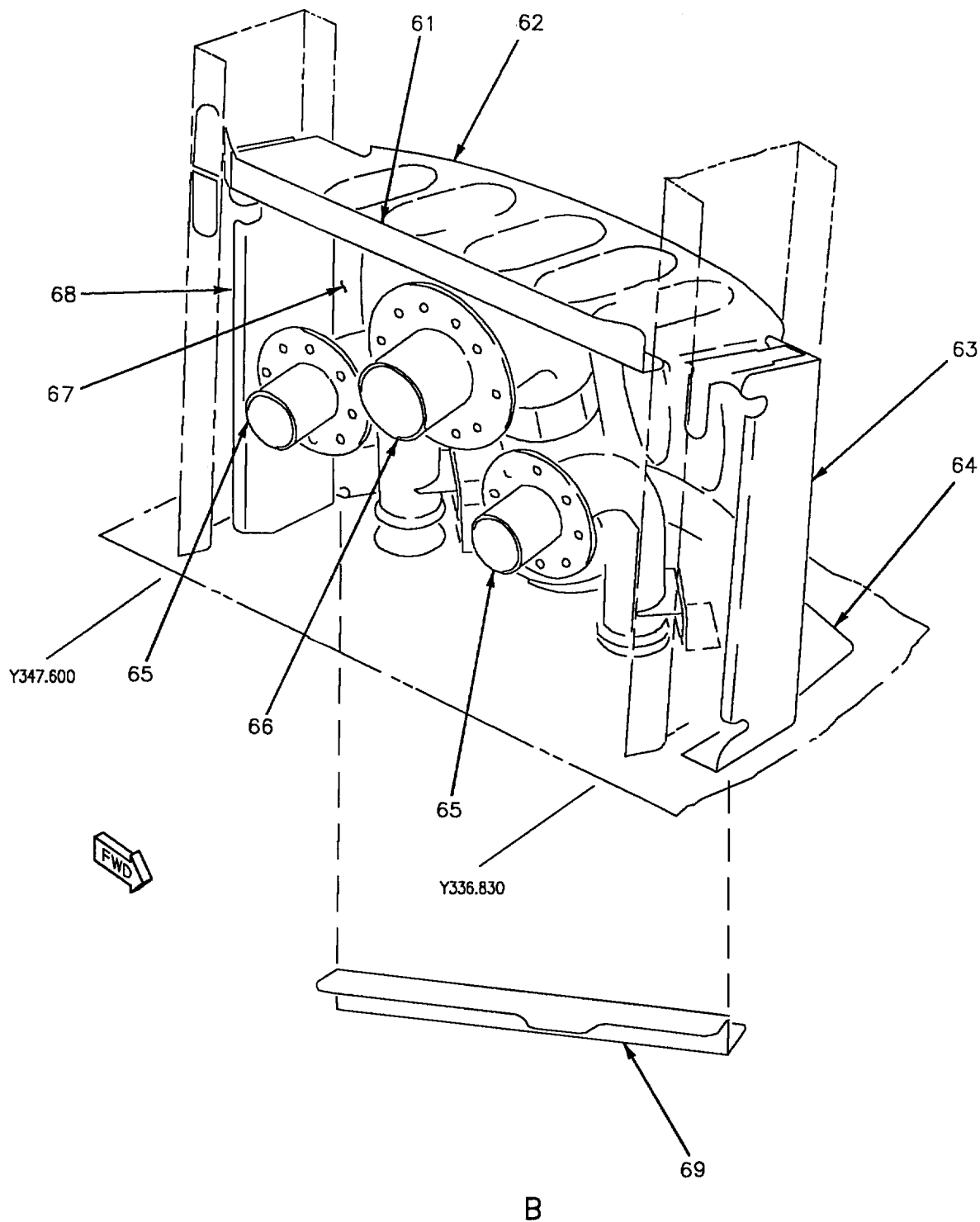


Figure 3. Material Index - F/A-18B (Sheet 5)

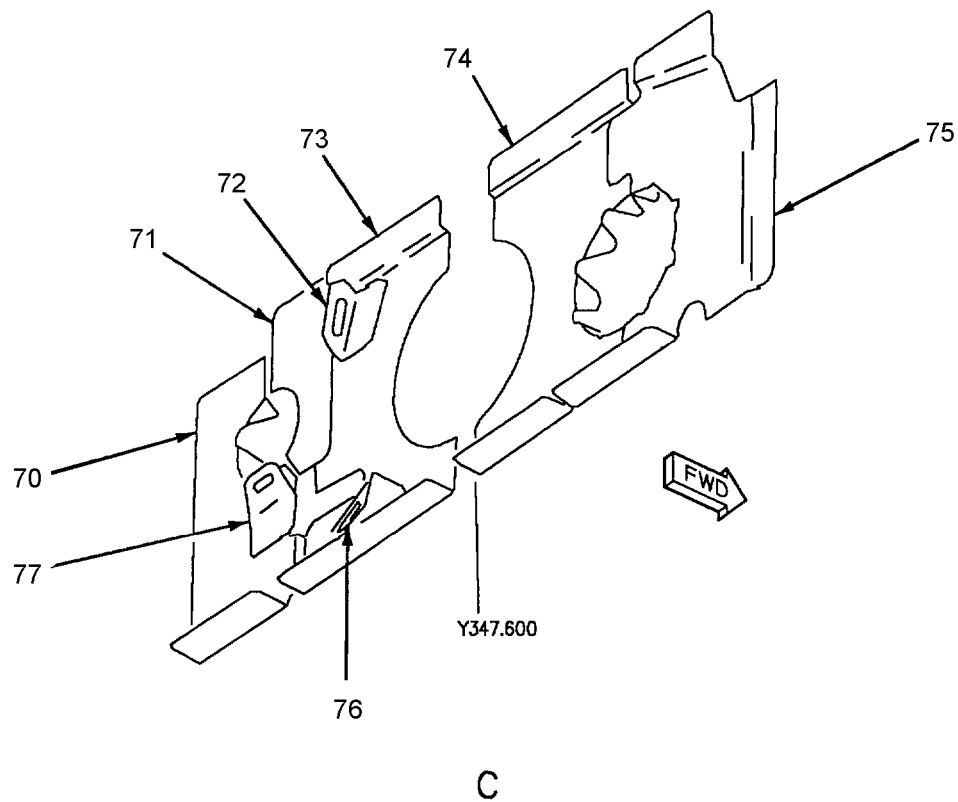


Figure 3. Material Index - F/A-18B (Sheet 6)








Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Channel 74A314031-2025, -2024 74A314031-2025, -9013 74A314031-2025, -2027	0.063 Sheet	7075-T6 Alclad
2		Support 74A314031-2019, -2020 74A314031-2019, -9015	0.050 Sheet	7075-T6 Alclad
3		Support 74A350610-2001	1MA10327D05 Extr	7075-T73511 Al Aly
4		Support 74A314614-2001	0.140 Sheet	6Al-4V Ti Anl
5		Angle 74A800015-2037 74A800015-2071	0.063 Sheet	7075-T6 Alclad
6		Beam 74A800014-2137	0.080 Sheet	7075-T6 Al Aly
7		Angle 74A800015-2039 74A800015-2073	0.063 Sheet	7075-T6 Alclad
8		Beam 74A800015-2059	ST9M571-86 Strip	7075-T76511 Al Aly
9		Beam 74A800014-2107	ST9M571-86 Strip	7075-T7611 Al Aly
10		Beam 74A800015-2033	1MA120D05-10281 Extr	7075-T73511 Al Aly
11		Beam 74A800014-2095 74A800014-2133	0.080 Sheet	7075-T6 Al Aly
12		Stringer 74A314043-2009, -2010	0.050 Sheet	7075-T6 Alclad
13		Beam 74A800014-2081 74A800014-2135	0.080 Sheet	7075-T6 Alclad
14		Angle 74A314336-2093	0.050 Sheet	7075-T6 Alclad

Figure 3. Material Index - F/A-18B (Sheet 7)










Idx No.	Eft	Nomenclature and Part No.	Description	Material
15		Retainer 74A350813-2005	Machining	Cres
16		Beam 74A800014-2067 74A800014-2099	0.080 Sheet	7075-T6 Al Aly
17		Support 74A800014-2097 74A800014-2099	0.050 Sheet	7075-T6 Al Aly
18		Fitting 74A314877-2001	Machining	7050-T73652 Al Aly
19		Beam 74A802080-2023	1MA120D05-10281 Extr	7075-T73511 Al Aly
20		Beam 74A800014-2125	1MA100D05-10286 Extr	7075-T73511 Al Aly
21		Seal 74A314445-2007, -2004 74A314445-2011, -2012	0.040 Sheet	7075-T6 Alclad
22		Beam 74A800014-2073 74A800014-2143	1MA120D05-10281 Extr	7075-T73511 Al Aly
23		Angle 74A800014-2115	0.050 Sheet	7075-T6 Al Aly
24		Leaf Hinge 74A314444-2001, -2002	1MA10466D05 Extr	7075-T73511 Al Aly
25		Stringer 74A800014-2091 74A800014-2149	0.050 Sheet	7075-T6 Al Aly
26		Seal 74A314445-2005, -2006 74A314445-2009, -2010	0.040 Sheet	7075-T6 Alclad
27		Tee 74A800014-9011 74A314445-2009, -2010	1MA160D05-10397	7075-T73511 Al Aly
28 L R		Hinge Half 74A314256-2009  74A314378-2005 	1MA10504D06 Extr Machining	7075-T76511 Al Aly 7075-T7351 Al Aly

Figure 3. Material Index - F/A-18B (Sheet 8)










Idx No.	Eft	Nomenclature and Part No.	Description	Material
29		Support 74A314031-2013, -2014	0.050 Sheet	7075-T6 Al Aly
30		Hinge Half  74A314373-2007, -2008	1MA10504D06 Extr	7075-T76511 Al Aly
31		Hinge Half  74A314373-2005, -2006	1MA10504D06 Extr	7075-T76511 Al Aly
32		Hinge Half  74A314372-2007, -2008	1MA10375D06 Extr	7075-T76511 Al Aly
33		Tee 74A802080-2017	1MA160D05-10211 Extr	7075-T73511 Al Aly
34		Beam 74A802080-2013	1MA120D05-10281 Extr	7075-T73511 Al Aly
35	 	Angle 74A802080-2003 74A802080-2059	0.050 Sheet	7075-T6 Alclad
36		Beam 74A802080-2001	ST9M571-87 Strip	7075-T76511 Al Aly
37	 	Retainer 74A350833-2001 74A350872-2001	Machining	Cres
38		Angle 74A314913-2005, -2006	0.063 Sheet	7075-T6 Alclad
39		Angle 74A314913-2003, -2004	0.063 Sheet	7075-T6 Alclad
40		Bracket 74A314858-2003, -2004	0.190 Sheet	7075-T76 Al Aly
41		Stiffener 74A314401-2001	0.75 Sheet	7075-T7351 Al Aly
42	 	Support 74A314443-2001, -2002 74A314443-2003, -2004	1MA10469D01 Extr 1MA10469D06 Extr	7075-T76 Al Aly 7075-T76511 Al Aly
43		Leaf Hinge 74A314440-2003, -2004	1MA10465D05 Extr	7076-T73511 Al Aly

Figure 3. Material Index - F/A-18B (Sheet 9)









Idx No.	Eft	Nomenclature and Part No.	Description	Material
44		Fitting 74A314863-2003 74A314863-2005 74A314863-2007	3.00 Plate	7075-T7351 Al Aly
45		Leaf Hinge 74A314439-2003, -2004 74A314439-2005, -2006	1MA10464D05 Extr	7075-T73511 Al Aly
46		Seal 74A314438-2004, -9001 74A314438-2004, -2007 74A314438-2011, -2012	1MA10469D01 Extr	7075-T76 Al Aly
47		Bulkhead 74A314338-2065, -2069	1MA10558D10	7075-T73 Al Aly
48		Shackle 74A314667-2003 74A314667-2007	Forging Forging	Steel Alloy Cres
49		Support 74A314617-2005	Forging	7075-T73 Al Aly
50		Adapter 74A314658-2001	Machining	Cres
51		Strap 74A314707-2001, -2002	0.140 Sheet	6Al-4V Ti Anl
52		Plate 74A314709-2001	0.080 Sheet	6Al-4V Ti Anl
53		Plate 74A314709-2003	0.050 Sheet	6Al-4V Ti Anl
54		Angle 74A314709-2005	0.125 Sheet	7075-T6 Alclad
55		Cover 74A314329-2005, -2006	0.063 Sheet	7075-T6 Al Aly
56		Cover 74A314328-2005, -2006 74A314328-2009, -2010	 Sheet	7075-T76 Al Aly
57		Support  74A314253-2007 74A314253-2013	1MA122D05-10023 Extr	7075-T73511 Al Aly

Figure 3. Material Index - F/A-18B (Sheet 10)



















Idx No.	Eft	Nomenclature and Part No.	Description	Material
58		Support  74A314253-2015	1MA122D05-10023 Extr	7075-T73511 Al Aly
59		Support  74A314253-2017	1MA122D05-10023 Extr	7075-T73511 Al Aly
60		Support  74A314254-2009	Machining	7075-T7351 Al Aly
61		Angle 74A314937-2007	0.063 Sheet	7075-T6 Alclad
62		Cap 74A314937-2003	0.071 Sheet	7075-T6 Alclad
63		Angle 74A314937-2021	0.080 Sheet	7075-T6 Alclad
64		Angle 74A314937-2005	0.071 Sheet	7075-T6 Alclad
65		Conduit Assembly 74A314934-1001	1.125 Tube	6061-T62 Al Aly
66		Duct 74A831255-2003	Casting	A356-T61 Al Aly
67		Enclosure 74A314937-2001	0.071 Sheet	7075-T6 Alclad
68		Angle 74A314937-2011	0.063 Sheet	7075-T6 Alclad
69		Zee 74A314937-2019	0.080 Sheet	7075-T6 Alclad
70		Shield 74A314447-2027	0.050 Sheet	6061-T6 Al Aly
71	 	Shield 74A314447-2023 74A314447-2037	0.032 Sheet	6061-T6 Al Aly
72	 	Bracket 74A314447-2015 74A314447-2039	0.063 Sheet	7075-T6 Alclad 6061-T6 Al Aly
73	 	Shield 74A314447-2009 74A314447-2033	0.050 Sheet	6061-T6 Al Aly

Figure 3. Material Index - F/A-18B (Sheet 11)
































Idx No.	Eft	Nomenclature and Part No.	Description	Material
74	 	Shield 74A314447-2031 74A314447-2035	0.032 Sheet	6061-T6 Al Al 6
75		Shield 74A314447-2029	0.040 Sheet	6061-T6 Al Aly
76		Bracket 74A314447-2013	0.063 Sheet	7075-T6 Alclad
77		Bracket 74A314447-2011	0.063 Sheet	7075-T6 Alclad
<p style="text-align: center;">LEGEND</p> <p>  F/A-18B 161354 THRU 161360.  F/A-18B 161704 THRU 162885.  F/A-18B 161354 THRU 161714.  F/A-18B 161719 AND UP.  F/A-18B 161354 THRU 161943.  F/A-18B 161947 AND UP.  F/A-18B 161719 THRU 161740.  F/A-18B 161746 AND UP.  F/A-18B 161354 THRU 162427.  F/A-18B 162836 AND UP.  F/A-18B 161356 THRU 161711.  F/A-18B 161354, 161355, 161714 THRU 162427.  F/A-18B 162836 AND UP.  F/A-18B 161354 THRU 161357.  F/A-18B 161360 AND UP.  F/A-18B 161354 THRU 161924.  F/A-18B 161932 AND UP.  Two M81934-1-04A008 bushings required.  Two M81934-1-05A008 bushings required.  Two NAS76A4-004P bushings required.  Land is 0.160, bays are 0.063.  F/A-18B 162402 AND UP.  F/A-18B 161354 THRU 161360 BEFORE F18 AFC 027.  F/A-18B 161704 AND UP; ALSO 161354 THRU 161360 AFTER F18 AFC 027.  F/A-18B 161354 THRU 162885.  F/A-18B 163104 AND UP.  F/A-18B 161354 THRU 161947.  F/A-18B 161704 THRU 162885.  F/A-18B 161704 AND UP. </p>				

Figure 3. Material Index - F/A-18B (Sheet 12)

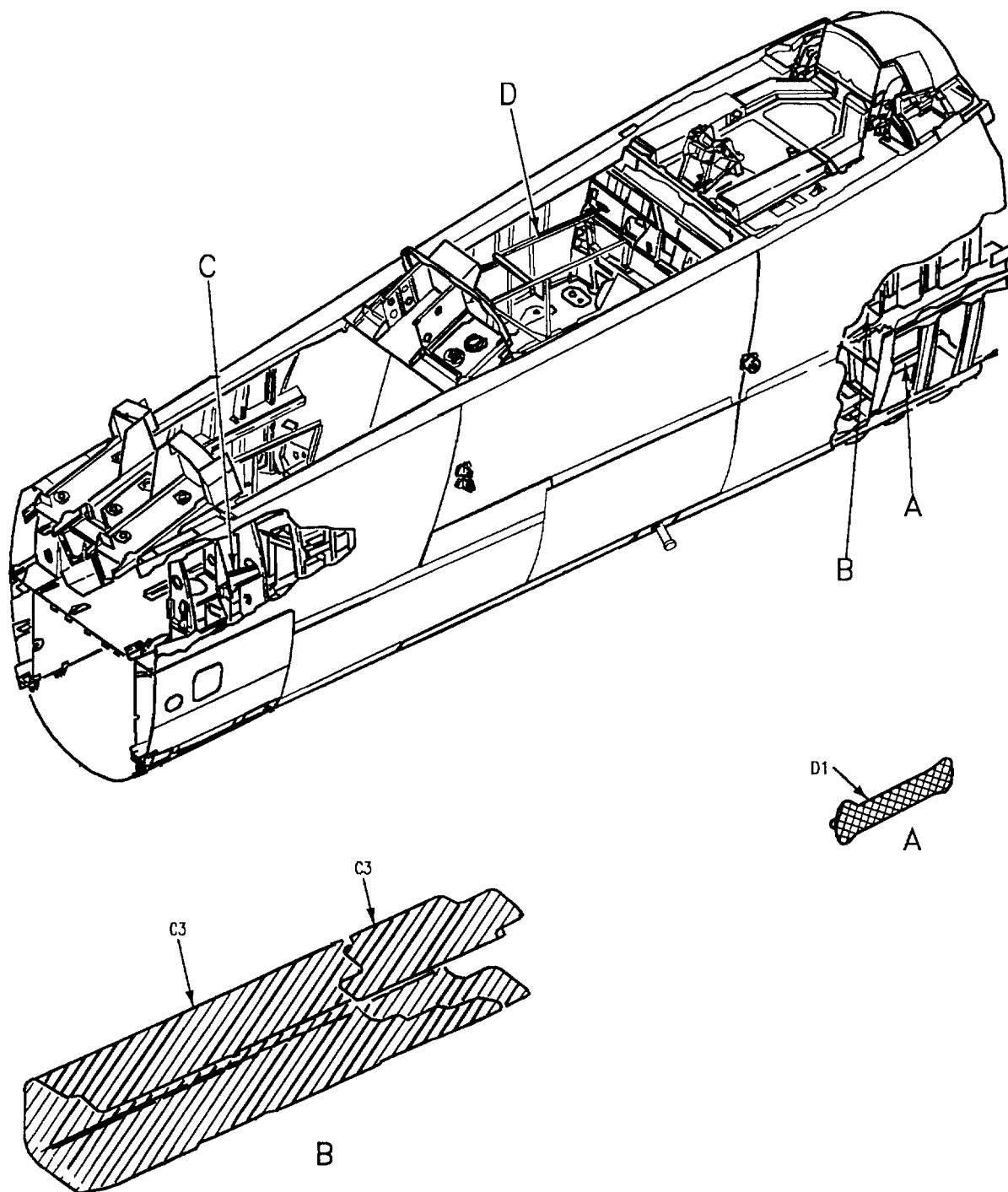


Figure 4. Repair Zones - F/A-18B (Sheet 1)

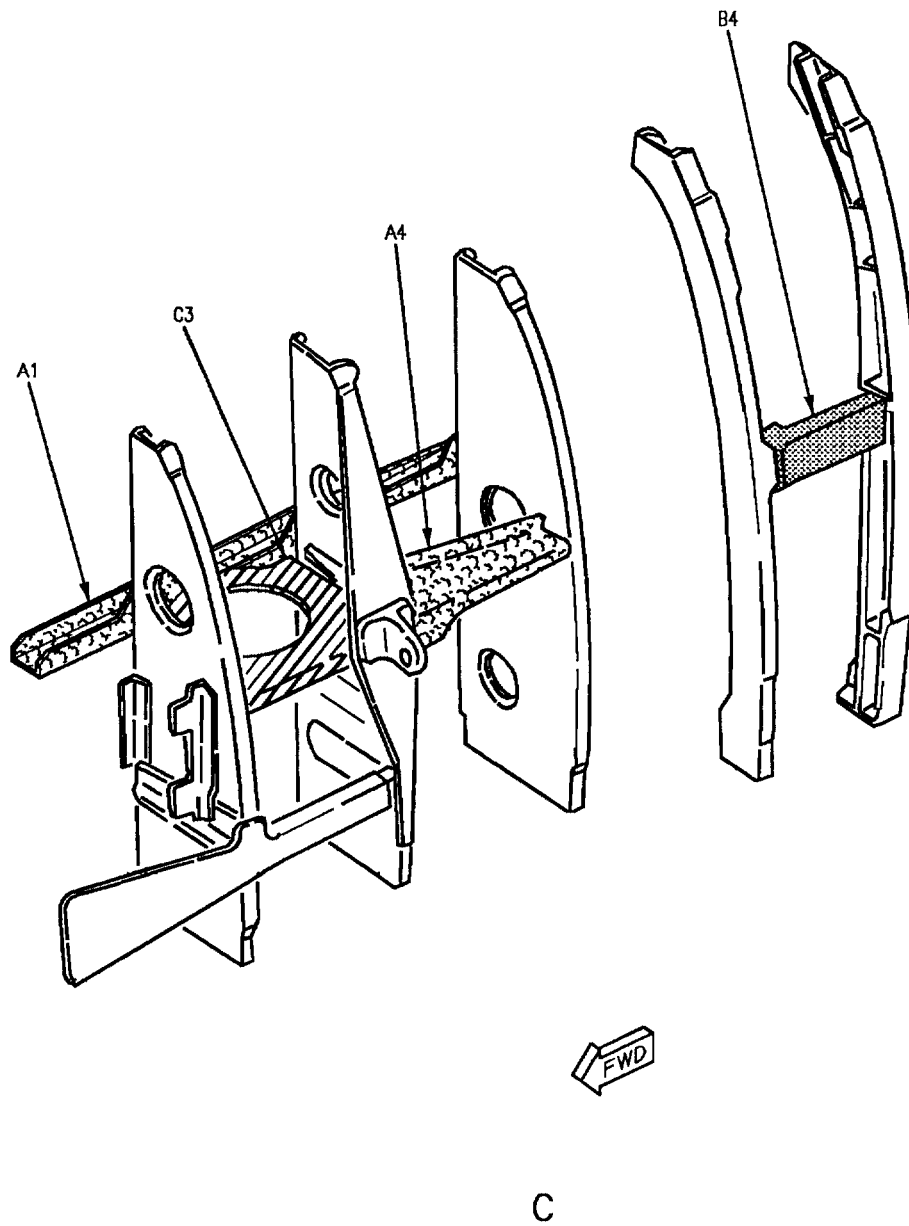


Figure 4. Repair Zones - F/A-18B (Sheet 2)

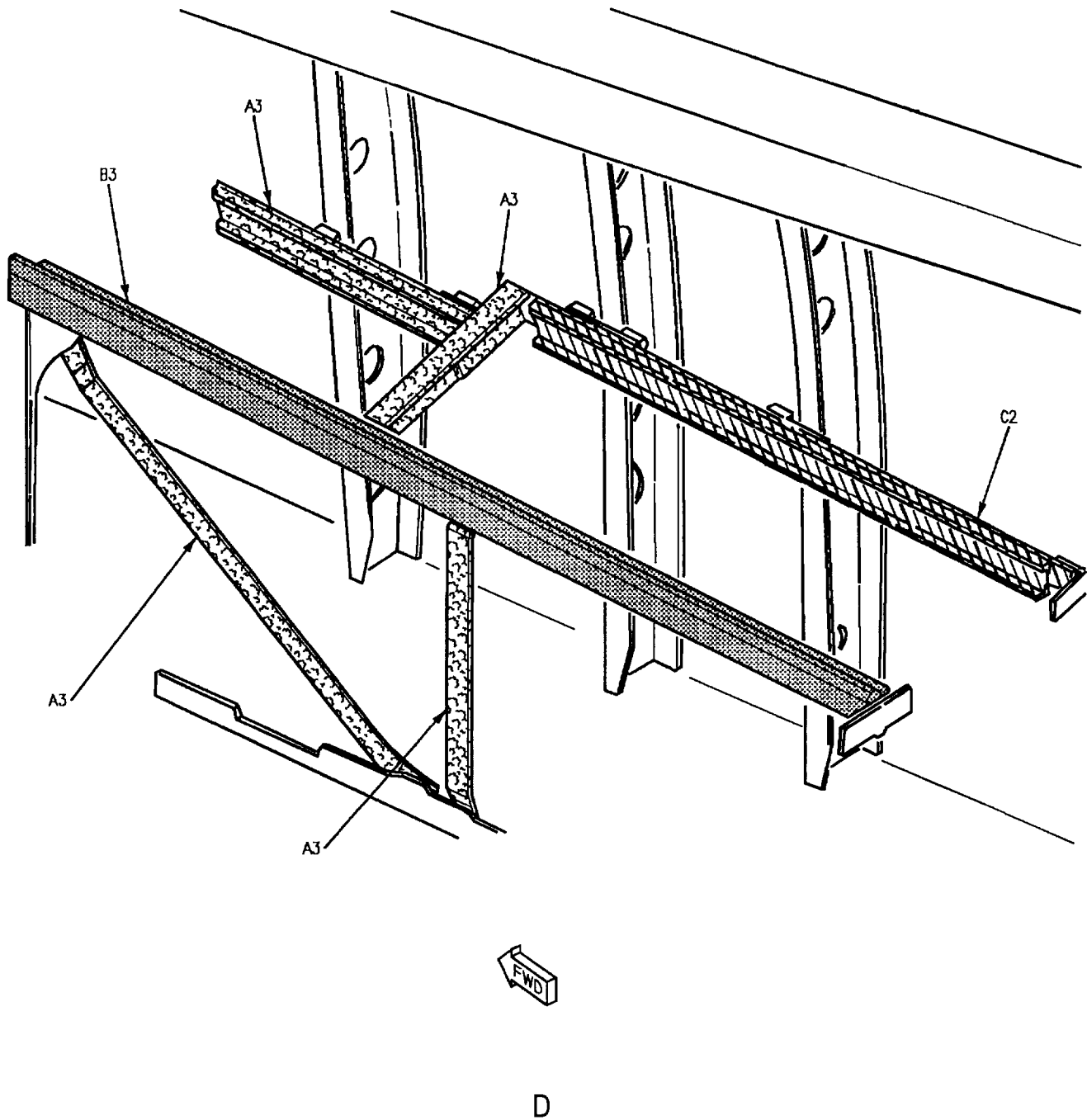
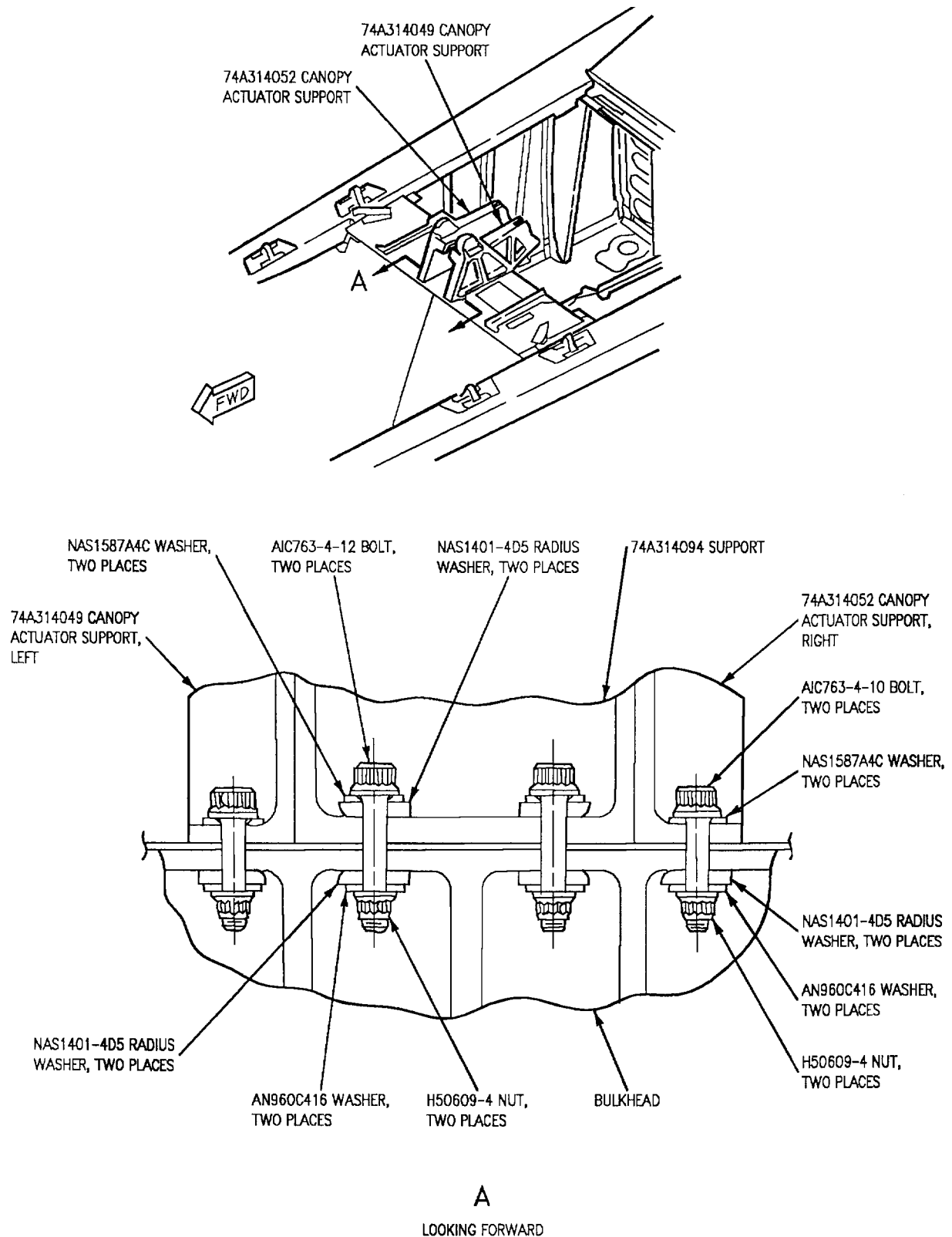
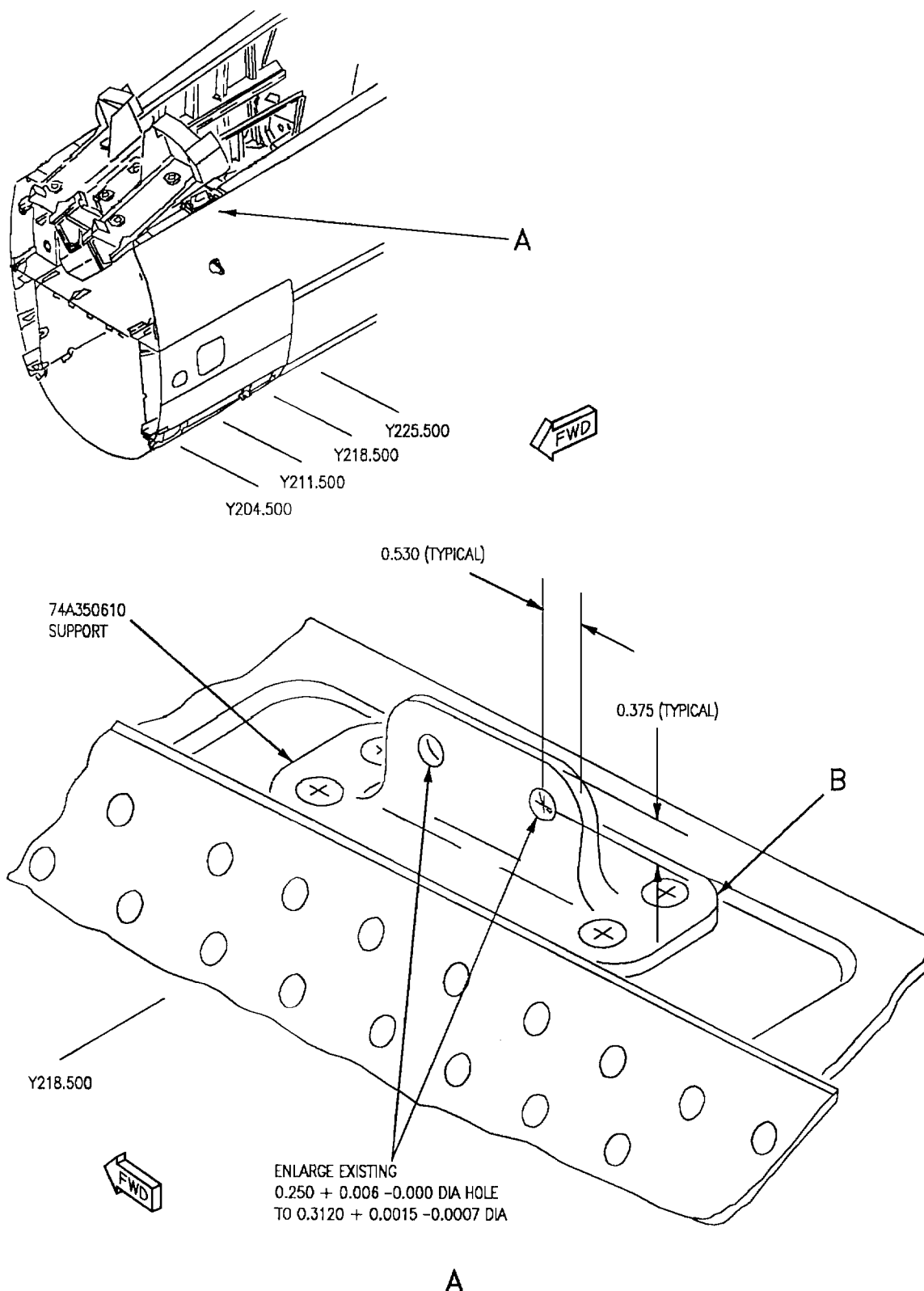


Figure 4. Repair Zones - F/A-18B (Sheet 3)



18AC-SRM-221-(91-1)01-SCAN

Figure 5. Canopy Actuator Support, Fastener Repair, F/A-18A



18AC-SRM-221-(92-1)01-SCAN

Figure 6. Windshield Center Attach Support Repair (Sheet 1)

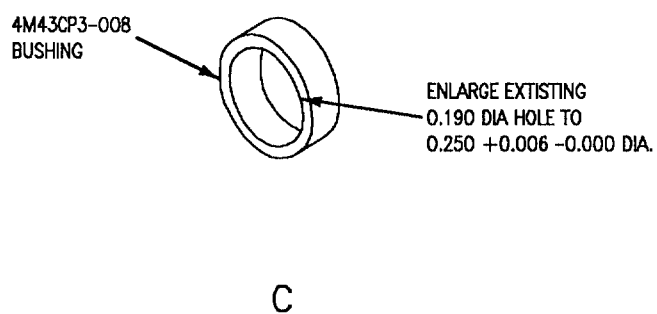
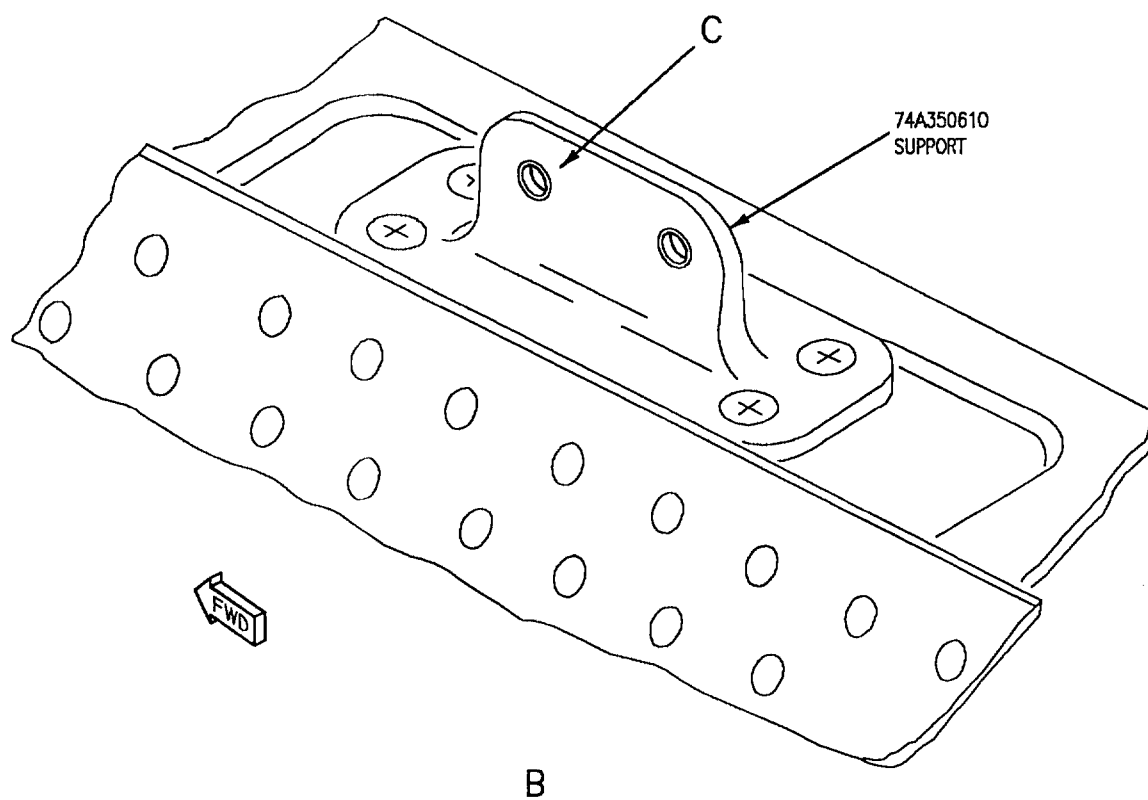


Figure 6. Windshield Center Attach Support Repair (Sheet 2)

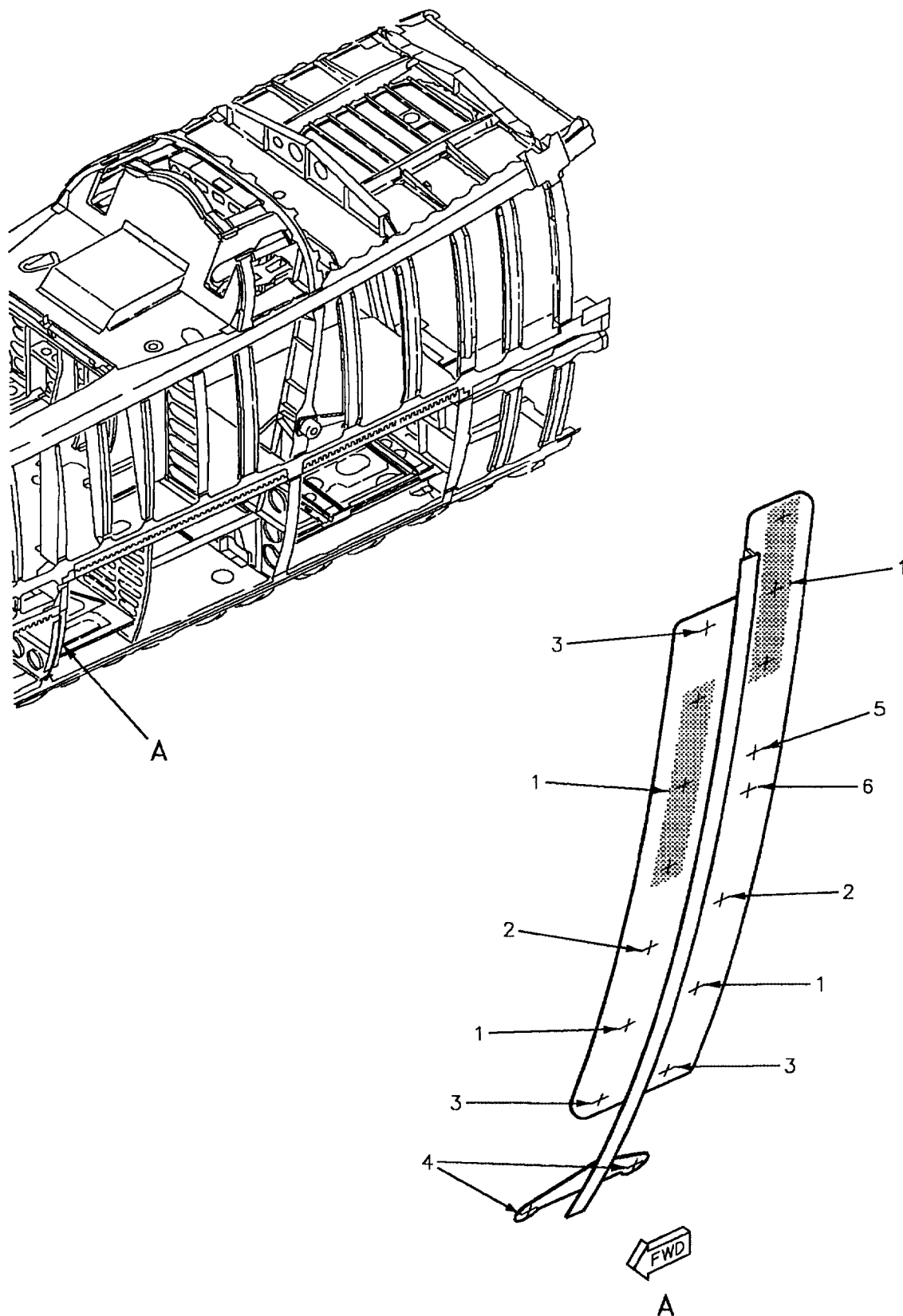


Figure 7. Filler (74A314338) Replacement (Sheet 1)

















Idx No.	Eft		Nomenclature	Part Number
1			Rivet	BRFS4T6
2			Rivet	BRFS4T5
3			Rivet	BRFS4T7
4			Rivet	RV1241-3-4
5	 	 	Rivet Rivet	BRFS4T9 BRFS4T6
6	 	 	Rivet Rivet	BRFS4T7 BRFS4T6
<p style="text-align: center;">LEGEND</p> <p> Hole diameter is 0.1285 +0.005 -0.000.</p> <p> Hole diameter is 0.097 + 0.004 -0.000.</p> <p> 161353 THRU 162852, RH only.</p> <p> 161353 THRU 162852, LH only.</p>				

Figure 7. Filler (74A314338) Replacement (Sheet 2)

ORGANIZATIONAL MAINTENANCE

STRUCTURE REPAIR

BULKHEADS, FORMERS, AND FRAMES; Y211.500 THRU Y286.500

Reference Material

Structure Repair, General Information A1-F18AC-SRM-200
 Adhesive, Cement, and Sealant; Preparation and Application WP011 00

Alphabetical Index

Subject	Page No.
Damage Evaluation	1
Negligible Damage	1
Repairable Damage	1
Repairs	1
Repair for 74A314656 Plate	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 1	1 Mar 86	Strengthening of Forward Fuselage Keel Web of (ECP MDA-F/A-18-00025)	1 Feb 84	-

1. **DAMAGE EVALUATION.** See figure 1.

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The figure identifies types of material used. The data shown can be used to analyze the damage.

3. **NEGLIGIBLE DAMAGE.** Damage requires a depot engineering disposition.

4. **REPAIRABLE DAMAGE.** Damage requires a depot engineering disposition.

5. **REPAIRS.**

6. Repair for 74A314656 plate can be done per paragraph 7. Other repairs require a depot engineering disposition.

7. **REPAIR FOR 74A314656 PLATE.** On aircraft F/A-18A 161353 THRU 161528, cabin pressurization problems may be caused by top hole on plate left open. See figure 1 (36).

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-I-735	Isopropyl Alcohol
MIL-S-83430, CLASS A-1/2	Sealing Compound
ST9M621-500	Nylon Button Plug



Isopropyl Alcohol, TT-I-735

2

a. Clean area with clean cheesecloth moistened with isopropyl alcohol.



Sealing Compound, MIL-S-83430, Class A-1/2

3

b. Prepare MIL-S-83430 sealing compound (A1-F18AC-SRM-200, WP011 00).

c. Wet install ST9M621-500 plug from forward side of bulkhead using sealing compound.

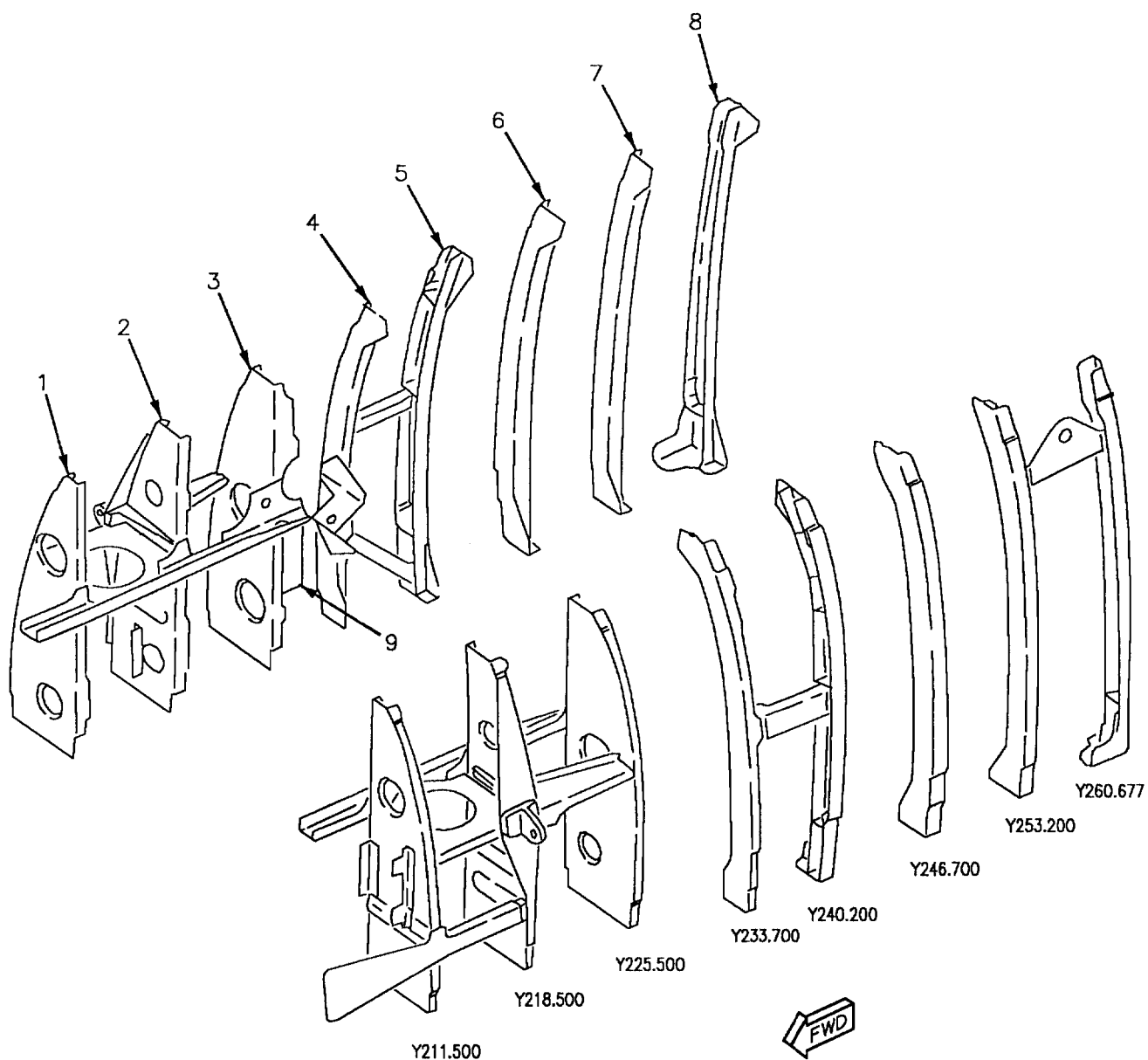


Figure 1. Material Index (Sheet 1)

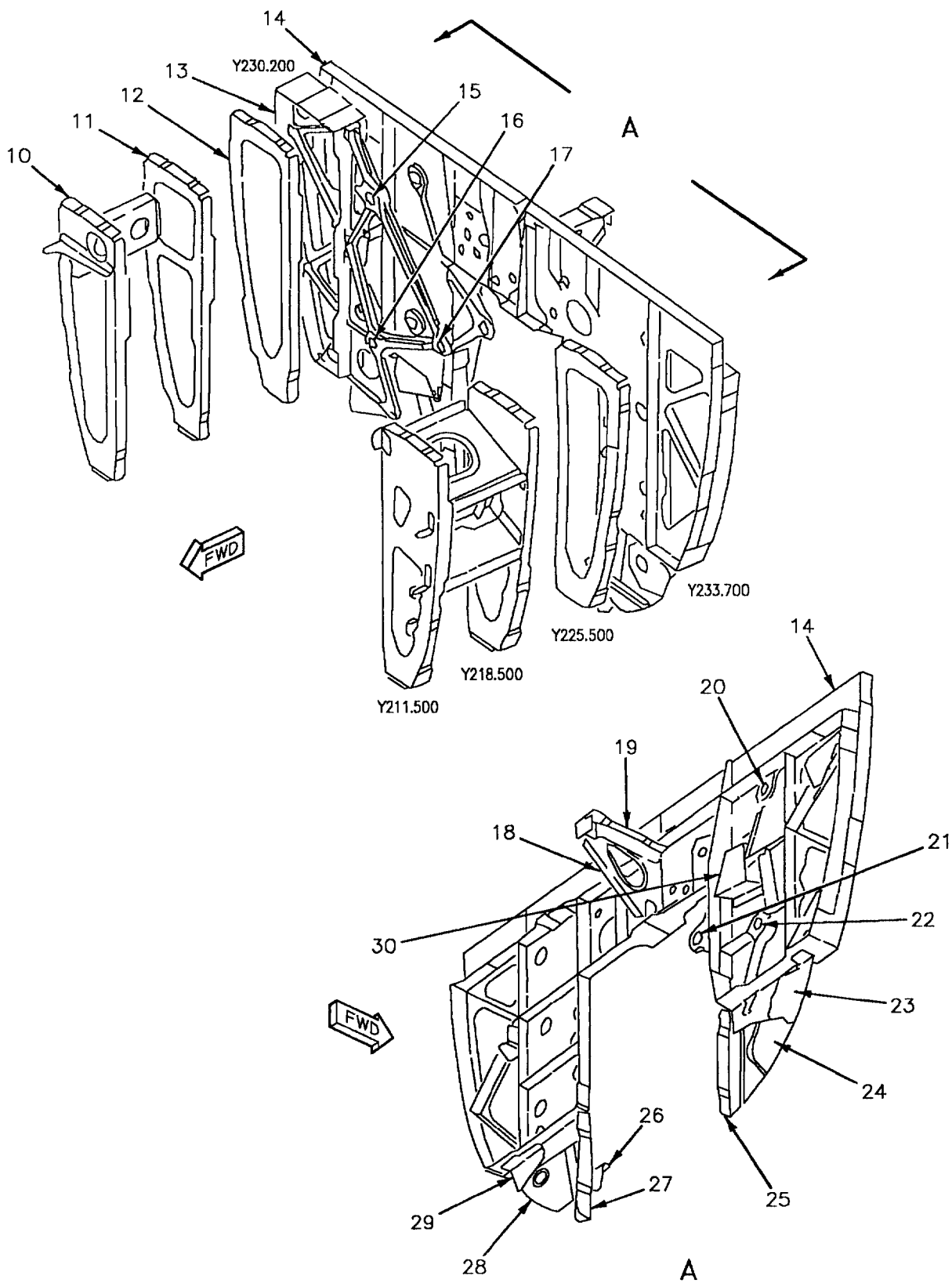


Figure 1. Material Index (Sheet 2)

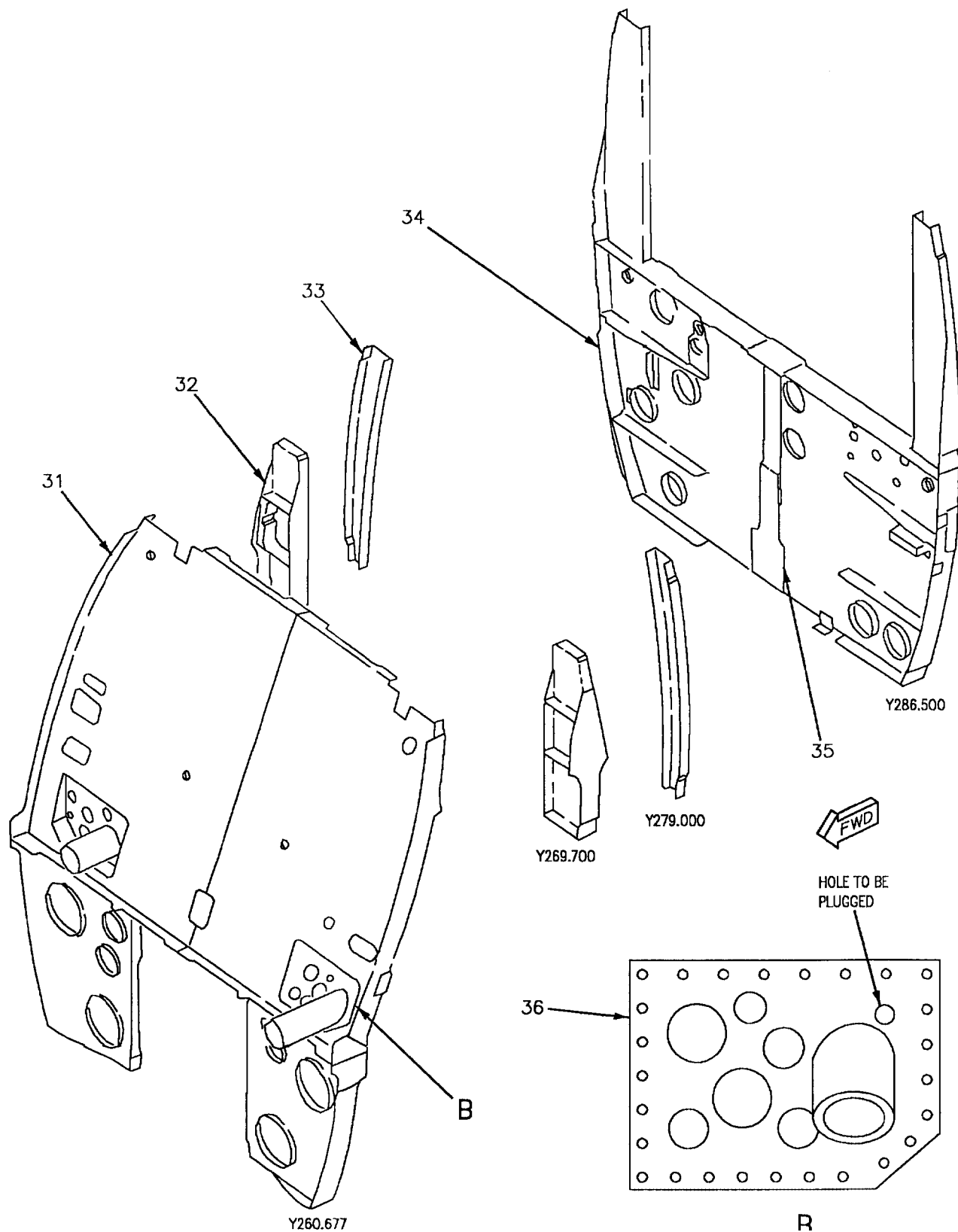


Figure 1. Material Index (Sheet 3)

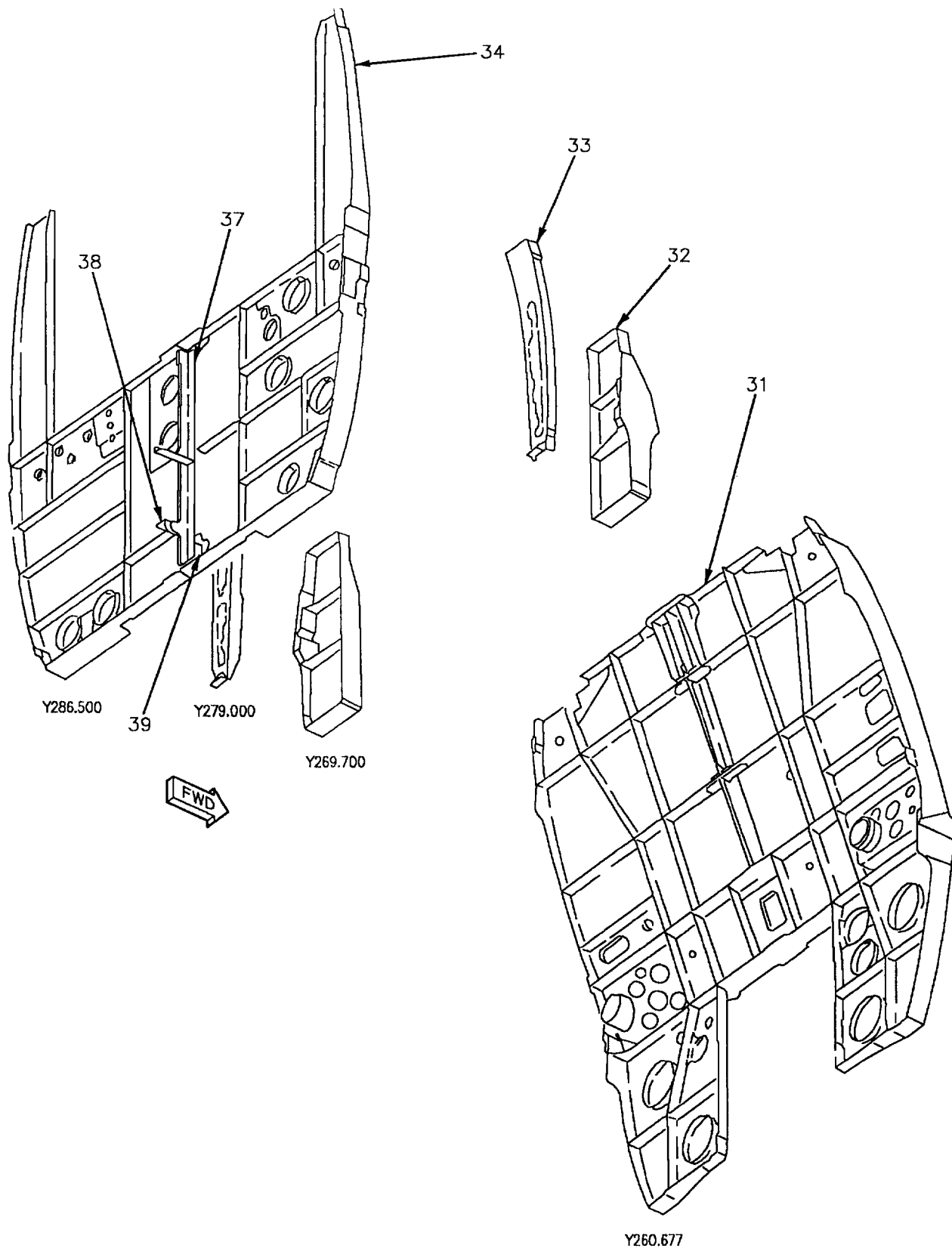


Figure 1. Material Index (Sheet 4)

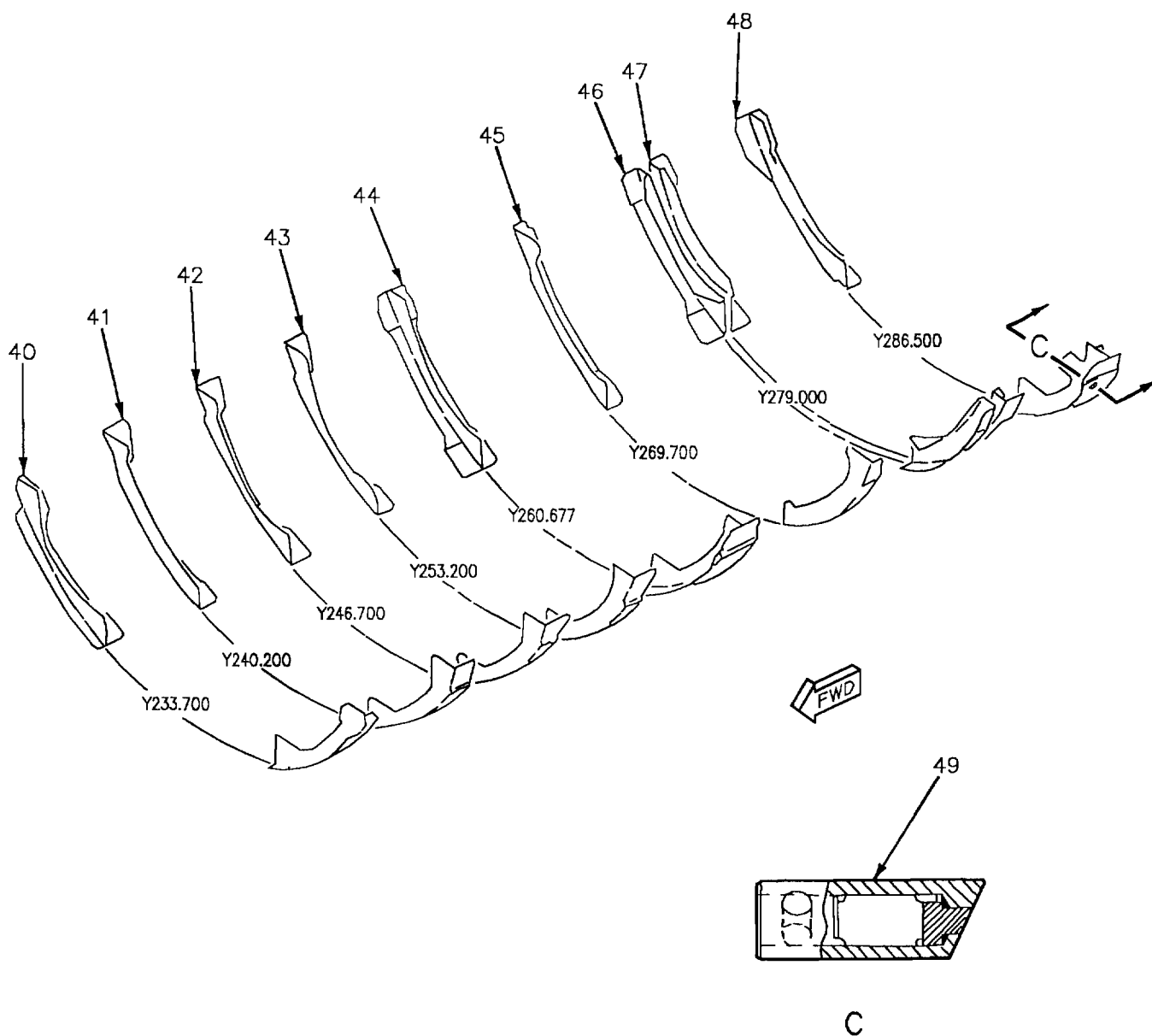


Figure 1. Material Index (Sheet 5)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
1	<div>23</div> <div>24</div> <div>58</div>	Former 74A314002-2025, -2023 74A314002-2027, -2023 74A314002-2027, -2033	0.050 Sheet	7075-T6 Alclad
2 L L L L R	<div>59</div> <div>62</div> <div>60</div> <div>61</div>	Former 74A314003-2031 74A314003-2043 74A314003-2039 74A314003-2045 74A314003-2033	0.080 Sheet	7075-T6 Alclad
3	<div>16</div> <div>17</div> <div>25</div> <div>42</div> <div>18</div> <div>26</div> <div>27</div> <div>43</div>	Former 74A314004-2029, -2037 74A314004-2041, -2037 74A314004-9001, -2037 74A314004-2045, -2037 74A314004-2035, -2037 74A314004-2043, -2037 74A314004-9003, -2037 74A314004-2047, -2037	0.050 Sheet	7075-T6 Alclad
4	<div>64</div> <div>58</div>	Former 74A314005-2006, -2005 74A314005-2006, -2007	1.25 Plate	7075-T7351 Al Aly
5	<div>37</div> <div>38</div> <div>39</div>	Former 74A314006-2015, -2017 74A314006-2019, -2021 74A314006-2023, -2017	1.50 Plate	7075-T7351 Al Aly
6	<div>21</div> <div>22</div>	Former 74A314007-2002, -2005 74A314007-2002, -2007	1.25 Plate	7075-T7351 Al Aly
7		Former 74A314008-2002, -2001	1.25 Plate	7075-T7351 Al Aly
8	<div>1</div> <div>2</div>	Former 74A314009-2012, -2009 74A314009-2014, -2007	3.25 Plate	7075-T7351 Al Aly
9	<div>20</div>	Plate 74A314004-2039	0.025 Sheet	7075-T6 Alclad
10		Former 74A314204-2027, -2025	0.050 Sheet	7075-T6 Alclad
11		Former 74A314205-2025, -2023	0.050 Sheet	7075-T6 Alclad

Figure 1. Material Index (Sheet 6)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
12		Former 74A314206-2008, -2007	0.050 Sheet	7075-T6 Alclad
13		Former 74A314377-2005	3.00 Plate	7075-T7351 Al Aly
14	<div>28</div> <div>29</div> <div>63</div>	Bulkhead 74A314332-2037, -2035 74A314332-2041, -2039 74A314332-2041, -2047	3.00 Plate	7075-T7351 Al Aly
15		Bearing M81934/2-12A024	-	2024-T851 Al Aly
16		Bearing M81934/1-10A024	-	2024-T851 Al Aly
17		Bearing M81934/1-09A010	-	2024-T851 Al Aly
18		Support 74A314036-2017	0.050 Sheet	7075-T6 Al Aly
19		Tee 74A314036-2009	1MA160D01-10431 Extr	7075-T76 Al Aly
20		Bearing M81934/2-12A018	-	2024-T851 Al Aly
21		Bearing M81934/1-09A008	-	2024-T851 Al Aly
22		Bearing M81934/1-10A032	-	2024-T851 Al Aly
23		Angle 74A314333-2043	0.063 Sheet	7075-T6 Alclad
24		Cover 74A314333-2045	0.190 Sheet	7075-T76 Alclad
25		Angle 74A314333-2041	0.063 Sheet	7075-T6 Alclad
26		Angle 74A314333-2039	0.050 Sheet	7075-T6 Alclad
27	36	Angle 74A314333-2037	0.063 Sheet	7075-T6 Alclad
28	36	Cover 74A314333-2035	0.100 Sheet	7075-T76 Alclad

Figure 1. Material Index (Sheet 7)




































Idx No.	Eft	Nomenclature and Part No.	Description	Material
29		Angle 74A314333-2017	0.063 Sheet	7075-T6 Alclad
30		Bracket 74A314333-2023	0.063 Sheet	7075-T6 Alclad
31	     	Bulkhead 74A314335-2015, -2016 74A314335-2023, -2020 74A314335-2027, -2028 74A314918-2004, -2005 74A314918-2008, -2009 74A314918-2012, -2011	Forging	7075-T7352 Al Aly
32	     	Former 74A314015-2024, -2023 74A314015-2028, -2027 74A314015-2032, -2031 74A314015-2026, -2025 74A314015-2030, -2029 74A314015-2034, -2033	4.00 Plate	7075-T7351 Al Aly
33	    	Former 74A314016-2010, -2009 74A314016-9006, -9005 74A314016-2012, -2011 74A314016-2012, -2013 Former 74A314803-2007, -2003	0.080 Sheet 1.50 Plate	7075-T6 Alclad 7075-T7351 Al Aly
34 R L L/R L R L R L R L L R L L R L/R	                	Bulkhead 74A314337-9023 74A314337-9035 74A314337-2037, -9033 74A314337-9031 74A314337-9043 74A314337-9045 74A314337-9037 74A314337-9039 74A314337-2045 74A314337-2043 74A314337-9047 74A314337-2049 74A314337-2053 74A314337-9051 74A314337-2047 74A314337-2057 74A314337-9055, -9053	2.50 Plate	7075-T7351 Al Aly

Figure 1. Material Index (Sheet 8)














Idx No.	Eft	Nomenclature and Part No.	Description	Material
L		74A314828-9025		
R		74A314828-2013		
L		74A314828-2017		
L/R		74A314828-2021, -2023		
L/R		74A314828-2025, -2027		
R		74A314828-2035		
L		74A314828-2031		
L		74A314337-9065		
35		Strap 74A314338-9015	0.250 Plate	7075-T7351 Al Aly
36		Plate 74A314656-2023	0.100 Sheet	6061-T6 Al Aly
37		Angle 74A314338-9011	1.00 Plate	7075-T7351 Al Aly
38		Angle 74A314338-9009	1.00 Plate	7075-T7351 Al Aly
39	 	Strap 74A314459-2001 74A314459-2003	0.250 Plate	7075-T7351 Al Aly
40		Former 74A314220-2011, -2012	Pressing	7075-T73 Al Aly
41		Former 74A314222-2008, -2007	Pressing	7075-T73 Al Aly
42		Former 74A314223-2008, -2007	Pressing	7075-T73 Al Aly
43		Former 74A314224-2012, -2007	Pressing	7075-T73 Al Aly
44		Former 74A314225-2020, -2015	Pressing	7075-T73 Al Aly
45		Former 74A314226-2008, -2007	Pressing	7075-T73 Al Aly
46		Former 74A314402-2004, -2003	Pressing	7075-T73 Al Aly
47		Former 74A314228-2004, -2003	Pressing	7075-T73 Al Aly
48		Former 74A314276-2011, -2009	Pressing	7075-T73 Al Aly

Figure 1. Material Index (Sheet 9)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
49		Receiver RI2636-1	Rod	17-4PH Cres
LEGEND				
1		F/A-18A.		
2		F/A-18B.		
3		F/A-18A 161353 AND 161358.		
4		F/A-18A 161353.		
5		F/A-18A 161359.		
6		F/A-18A 161358.		
7		F/A-18A 161361 THRU 161364.		
8		F/A-18A 161521 THRU 161528.		
9		F/A-18A 161365 THRU 161520.		
10		F/A-18A 161361.		
11		F/A-18A 161362 THRU 161520.		
12		F/A-18A 161521 THRU 161736.		
13		F/A-18B 161354 AND 161355.		
14		F/A-18B 161354 THRU 161357 AND 161360.		
15		F/A-18B 161356, 161357, AND 161360.		
16		F/A-18A 161353 THRU 161528.		
17		F/A-18A 161702 THRU 161715.		
18		F/A-18B 161354 THRU 161360.		
19		F/A-18B 161704 THRU 161733.		
20		161702 AND UP.		
21		161353 THRU 161714.		
22		161715 AND UP.		
23		161353 THRU 161715.		
24		161716 THRU 162477.		
25		F/A-18A 161716 THRU 161761.		
26		F/A-18B 161704 THRU 161714.		
27		F/A-18B 161719 THRU 161947.		
28		161353 THRU 161736.		
29		161737 THRU 163118.		
30		F/A-18B 161740 THRU 162885.		
31		F/A-18A 161702 THRU 161736.		
32		F/A-18A 161737 THRU 161749, 161755 THRU 161934, 161936 THRU 161942, 161945 THRU 161948, 161950 THRU 161953, 161955 AND 161956, 161958 THRU 161960, 161962 AND 161963, 161965 THRU 161967, 161969 AND 161970, 161972, 161974 THRU 162909.		
33		F/A-18A 161737 THRU 161745.		
34		F/A-18A 161747 THRU 161749, 161755 THRU 161934, 161936 THRU 161942, 161945 THRU 161948, 161950 THRU 161953, 161955 THRU 161967, 161969 AND 161970, 161972, 161974 THRU 162909.		
35		F/A-18A 161750 THRU 161754, 161935, 161944, 161949, 161954, 161968, 161971 AND 161973.		
36		161353 THRU 163118.		
37		161353 THRU 161924.		
38		161925 THRU 161934, 161936 THRU 161943, 161945 THRU 161948, 161950 THRU 161953, 161955, 161956, 161958 THRU 161960, 161962, 161963, 161965 THRU 161967, 161969, 161970, 161972, 161974 AND UP.		
39		161935, 161944, 161949, 161954, 161957, 161961, 161964, 161968, 161971 AND 161973.		

Figure 1. Material Index (Sheet 10)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
40			161973.	
41			161353 THRU 161359, AFTER F18 AFC 1.	
42			F/A-18A 161925 AND UP.	
43			F/A-18B 162402 AND UP.	
44			F/A-18A 161353 THRU 161987.	
45			F/A-18A 162394 THRU 162909.	
46			F/A-18B 161354 THRU 161947.	
47			F/A-18B 162402 THRU 162885.	
48			F/A-18A 161353 THRU 161933, 161935, 161944, AND 161949.	
49			F/A-18A 161934, 161936 THRU 161942, 161945 THRU 161948 AND 161950 THRU 162909.	
50			F/A-18A 161353 THRU 161952	
51			F/A-18A 161953, 161955, 161958 THRU 161960, 161962, 161963, 161965, AND 161968.	
52			F/A-18A 161954, 161957, 161961, 161964, 161969 THRU 162909.	
53			F/A-18B 161354 THRU 161932.	
54			F/A-18B 161938 THRU 162885.	
55			F/A-18A 161360 THRU 162909.	
56			F/A-18A 163092 AND UP.	
57			F/A-18B 163104 AND UP.	
58			162826 AND UP.	
59			F/A-18A 161353 THRU 162477.	
60			F/A-18B 161354 THRU 162427.	
61			F/A-18B 162836 AND UP.	
62			F/A-18A 162826 AND UP.	
63			163119 AND UP.	
64			161353 THRU 162477.	

Figure 1. Material Index (Sheet 11)

ORGANIZATIONAL MAINTENANCE

STRUCTURE REPAIR

FUSELAGE BULKHEADS, FORMERS, AND FRAMES; Y294.000 THRU Y383.000

Reference Material

None

Alphabetical Index

Subject	Page No.
Damage Evaluation	1
Negligible Damage	1
Repairable Damage	1
Repairs	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 27	-	Leading Edge Flap/Control Stick Changes, Incorporation of (ECP MDA-F/A-18-00044C2) (ECP 00044)	1 Jul 86	-

Support Equipment Required

None

Materials Required

None

1. **DAMAGE EVALUATION.** See figure 1.

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The figure identifies types of material used.

3. **NEGLIGIBLE DAMAGE.** Damage required depot engineering disposition.

4. **REPAIRABLE DAMAGE.** Damage requires depot engineering disposition.

5. **REPAIRS.**

6. Repairs require depot engineering disposition.

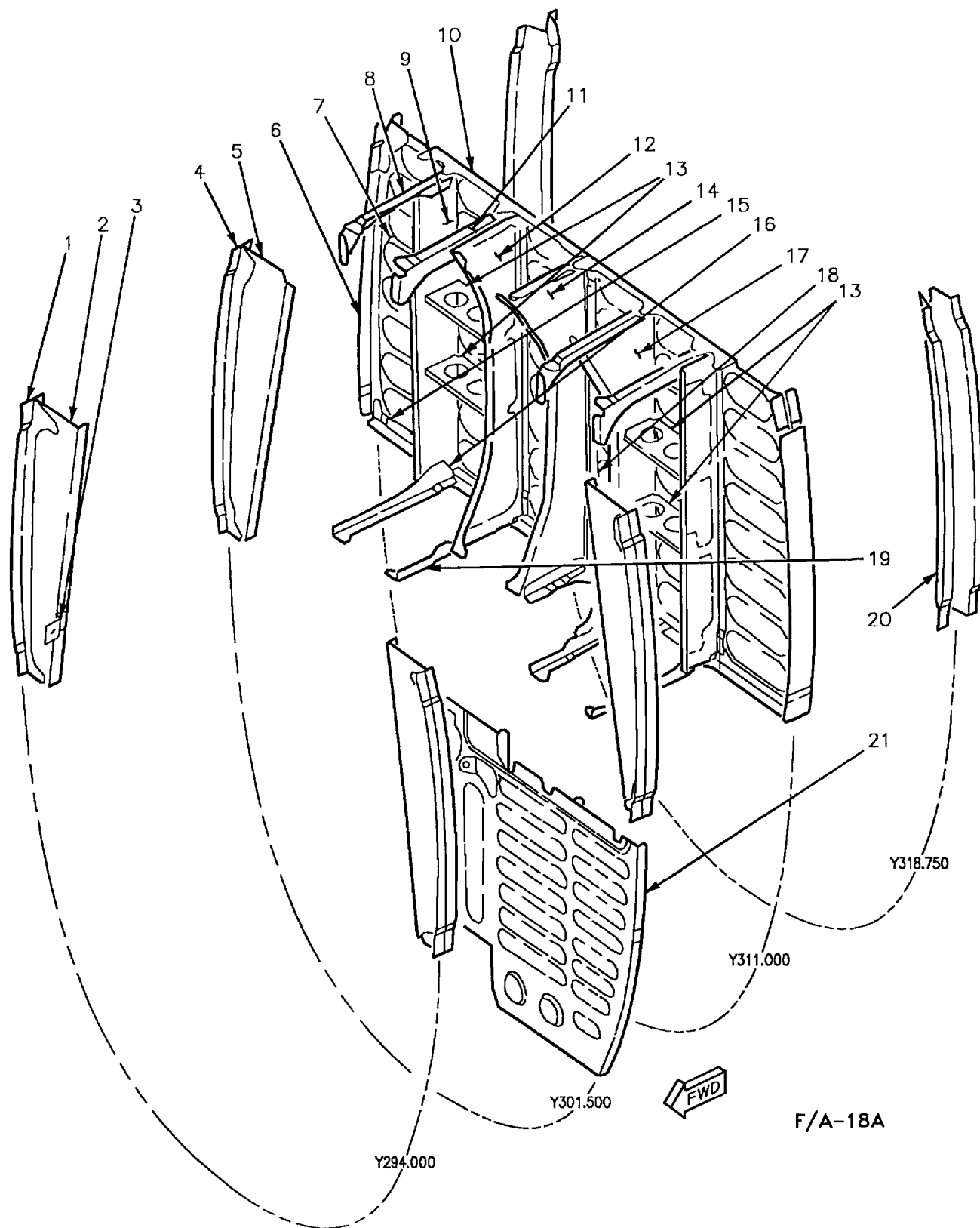


Figure 1. Material Index (Sheet 1)

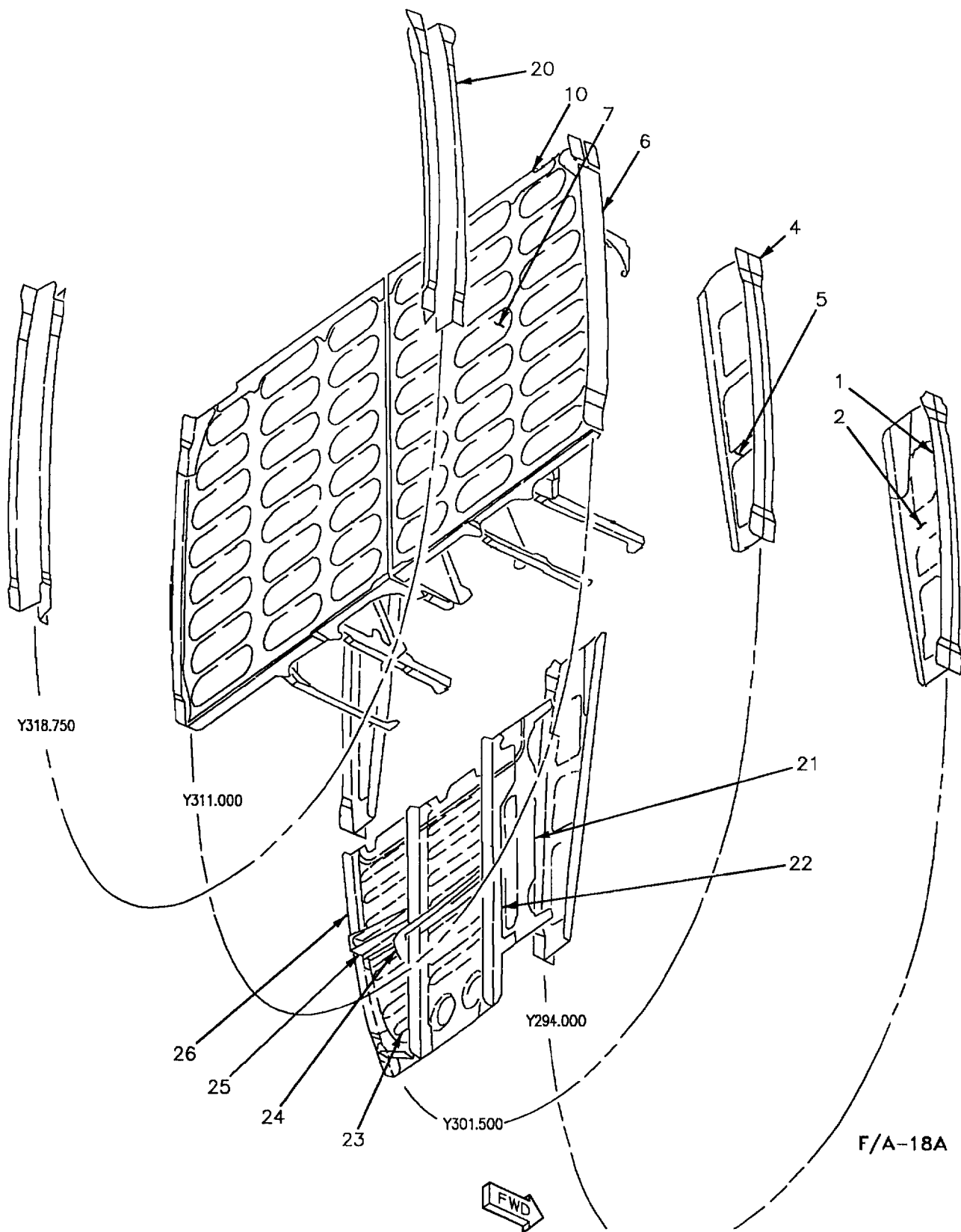


Figure 1. Material Index (Sheet 2)

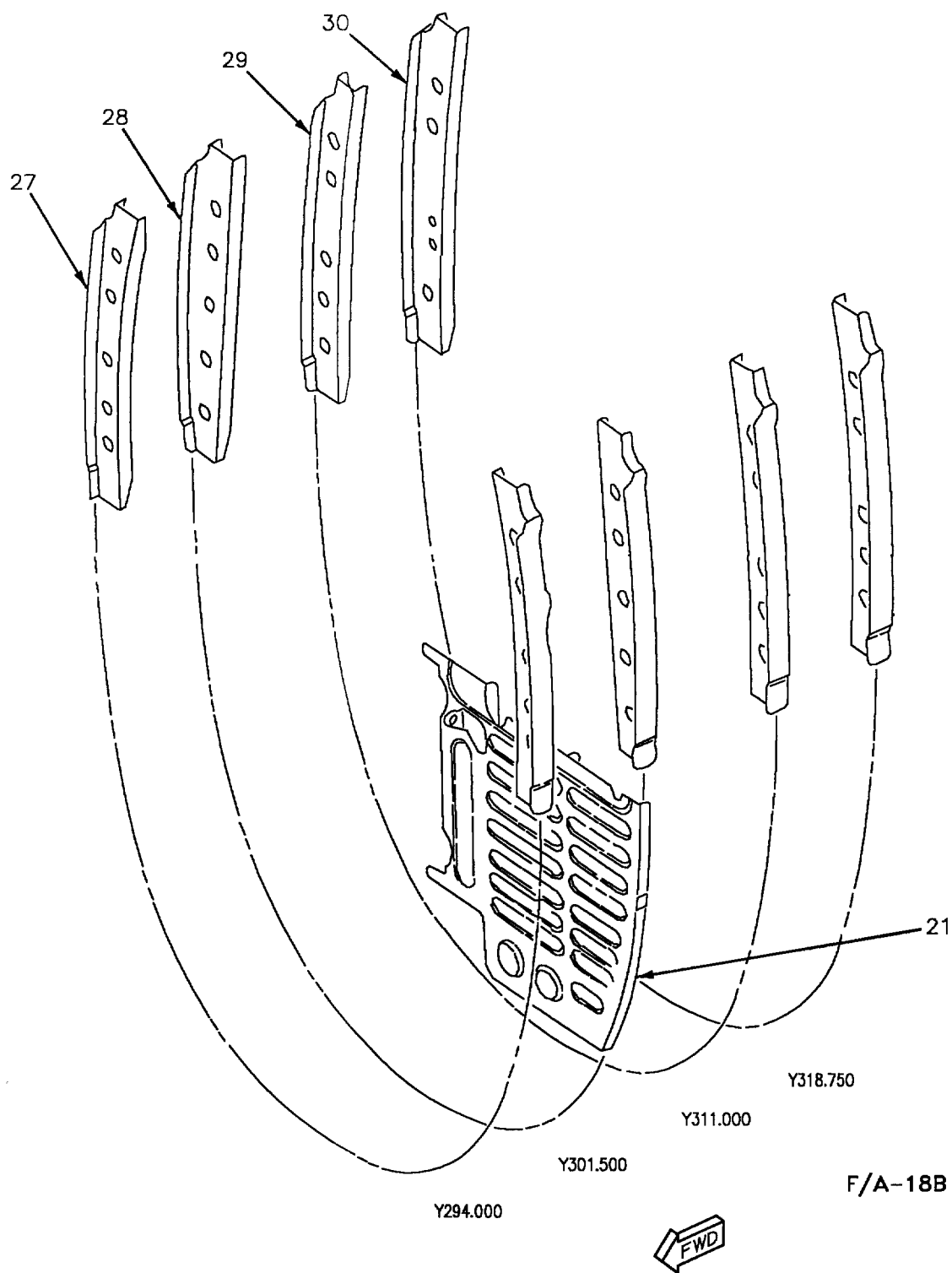


Figure 1. Material Index (Sheet 3)

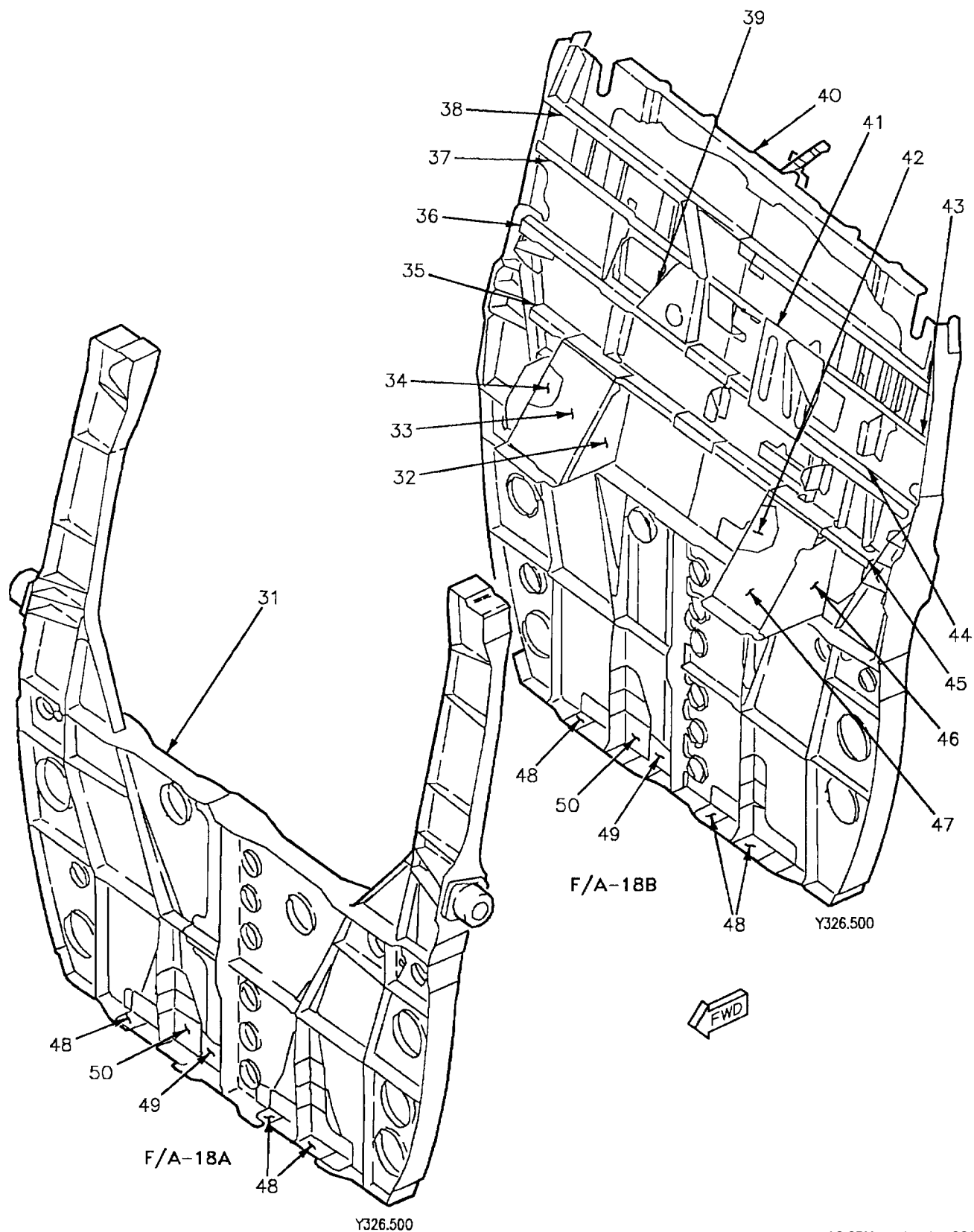


Figure 1. Material Index (Sheet 4)

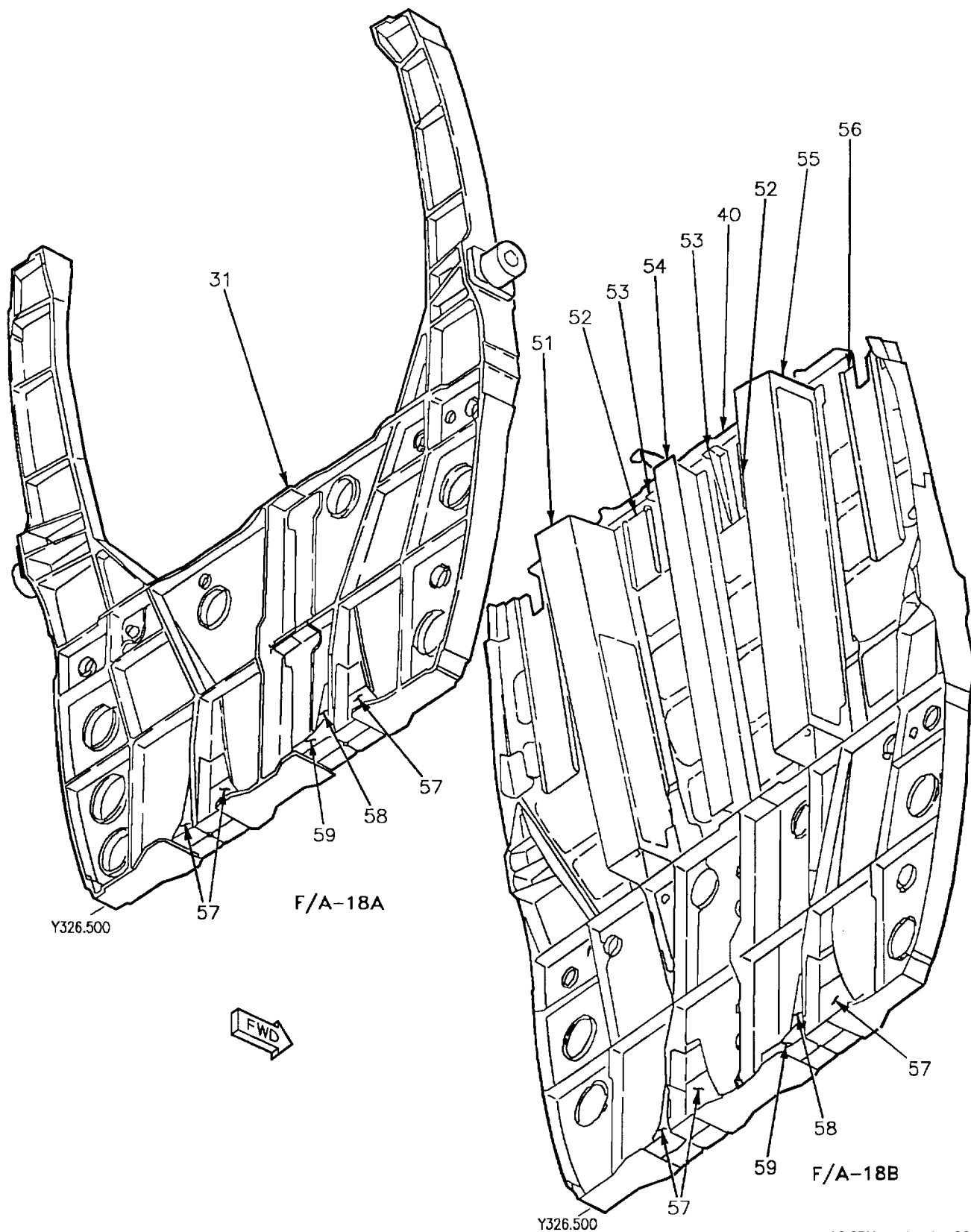


Figure 1. Material Index (Sheet 5)

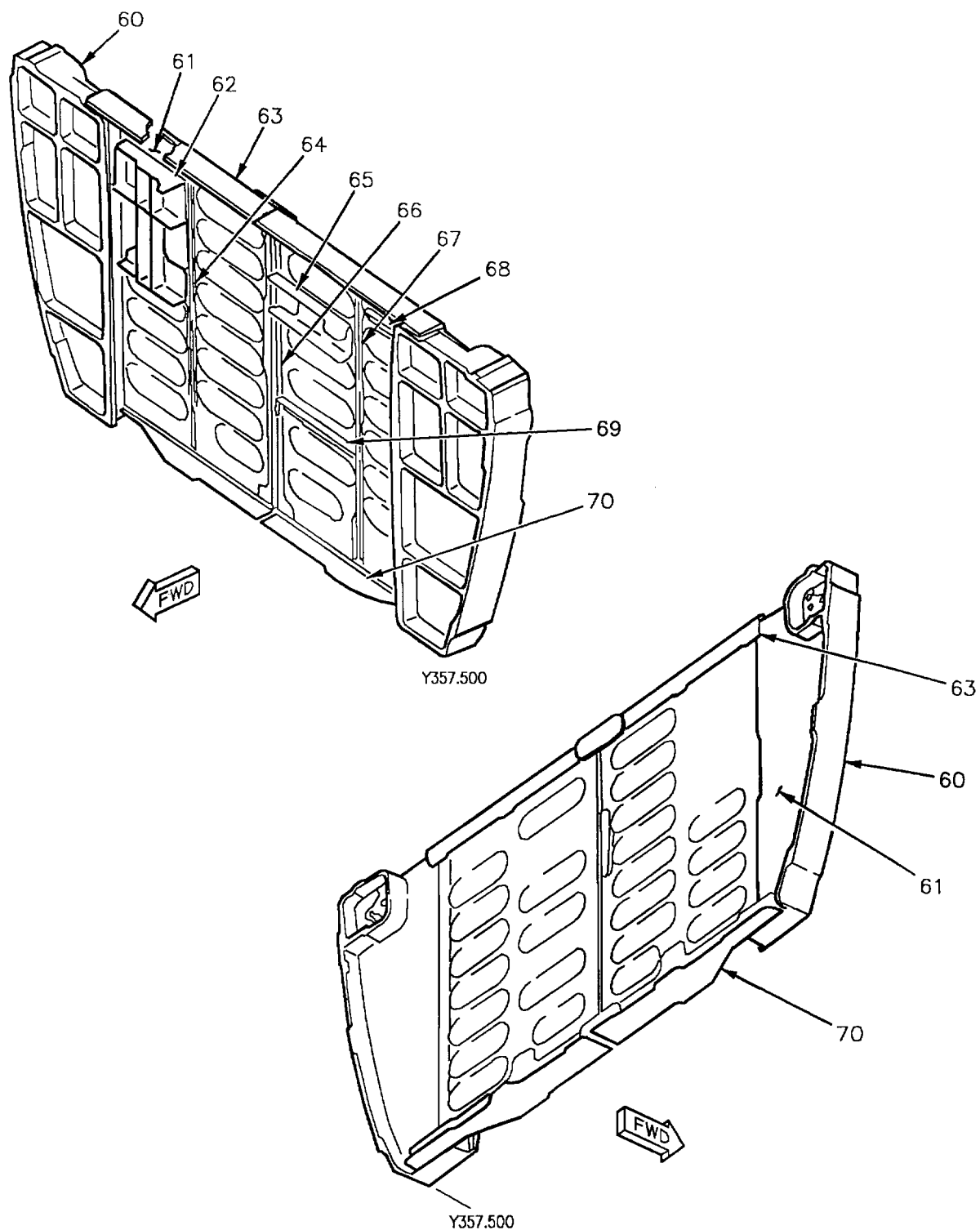
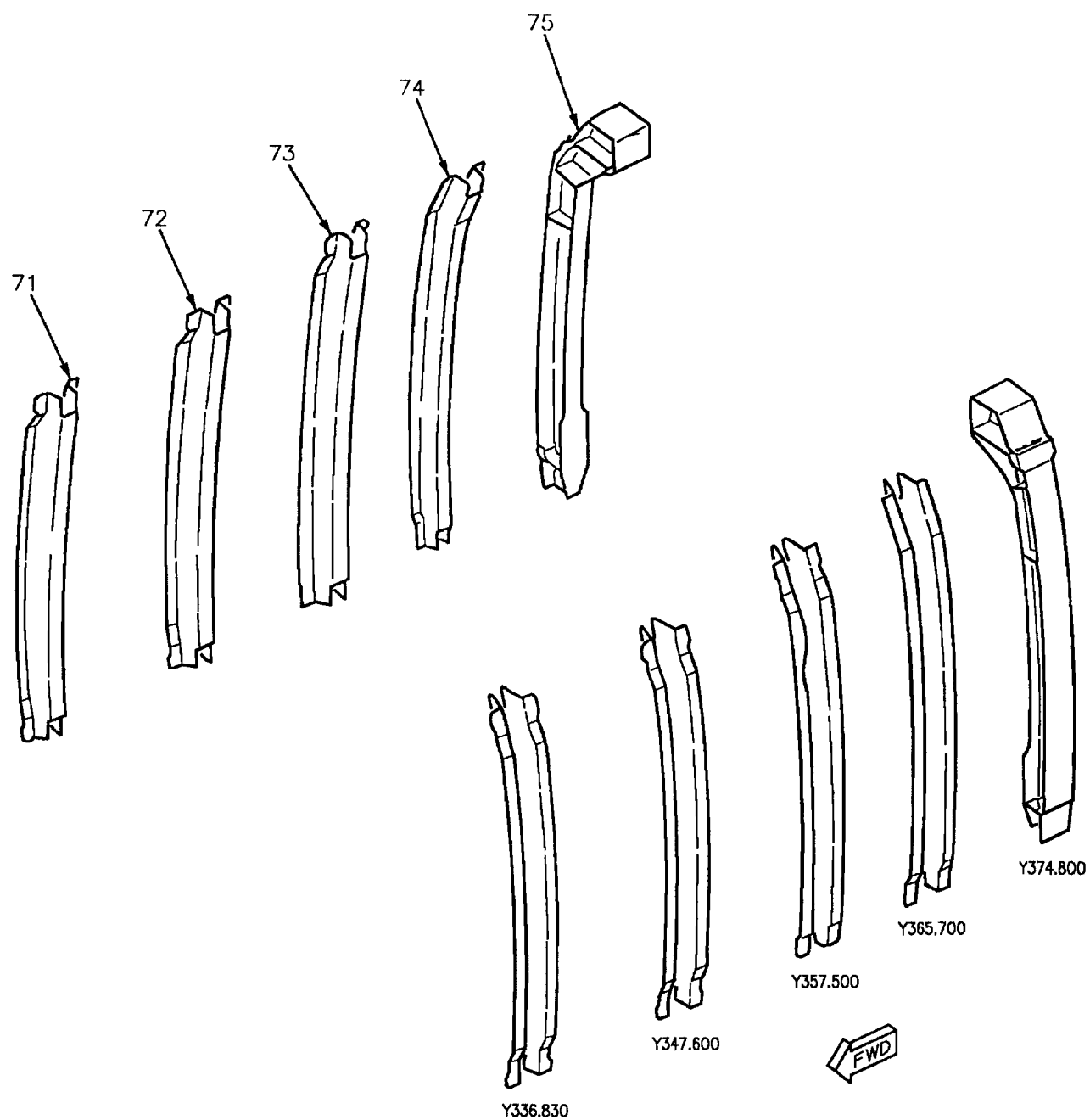


Figure 1. Material Index (Sheet 6)



F/A-18A

Figure 1. Material Index (Sheet 7)

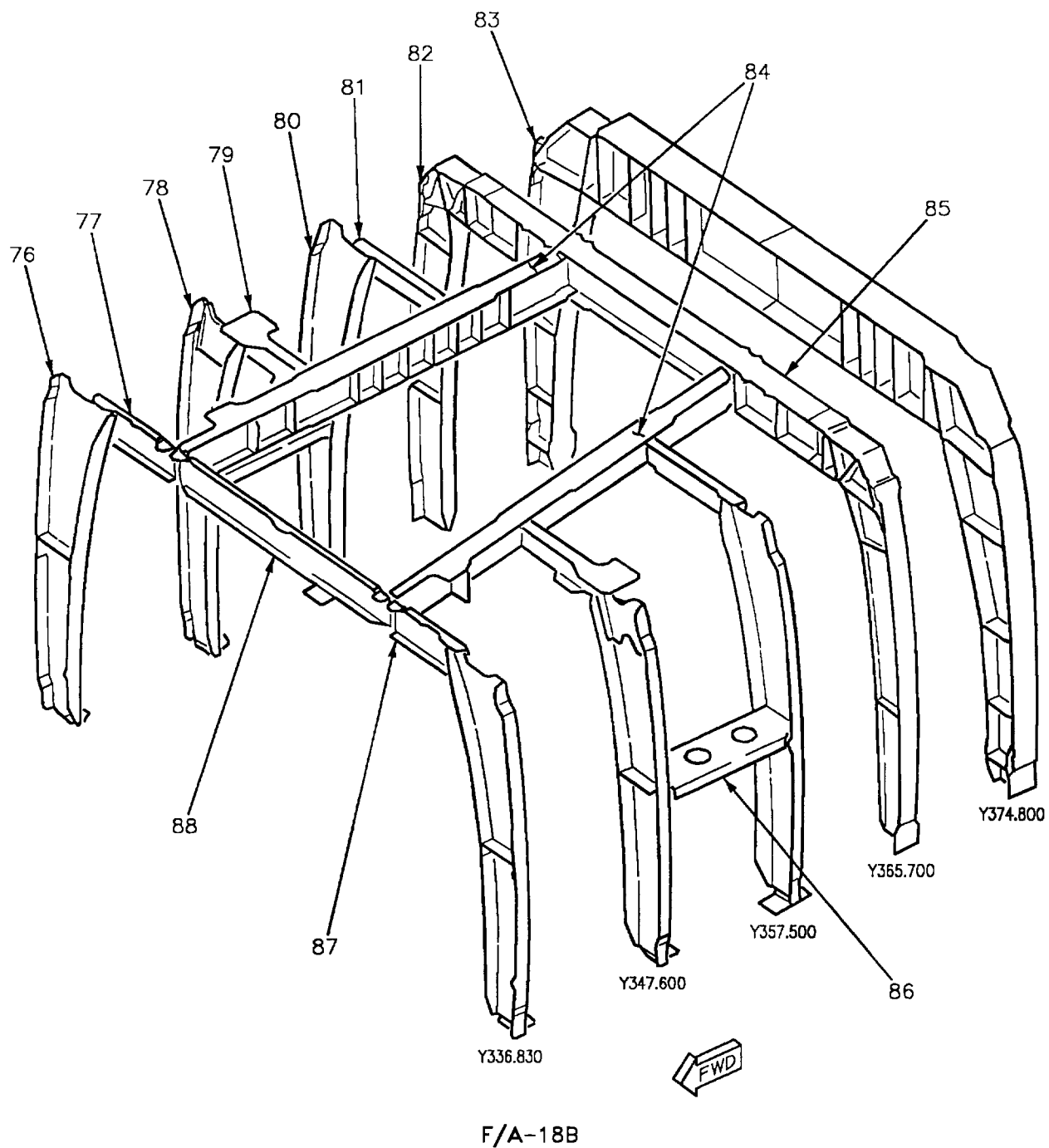


Figure 1. Material Index (Sheet 8)

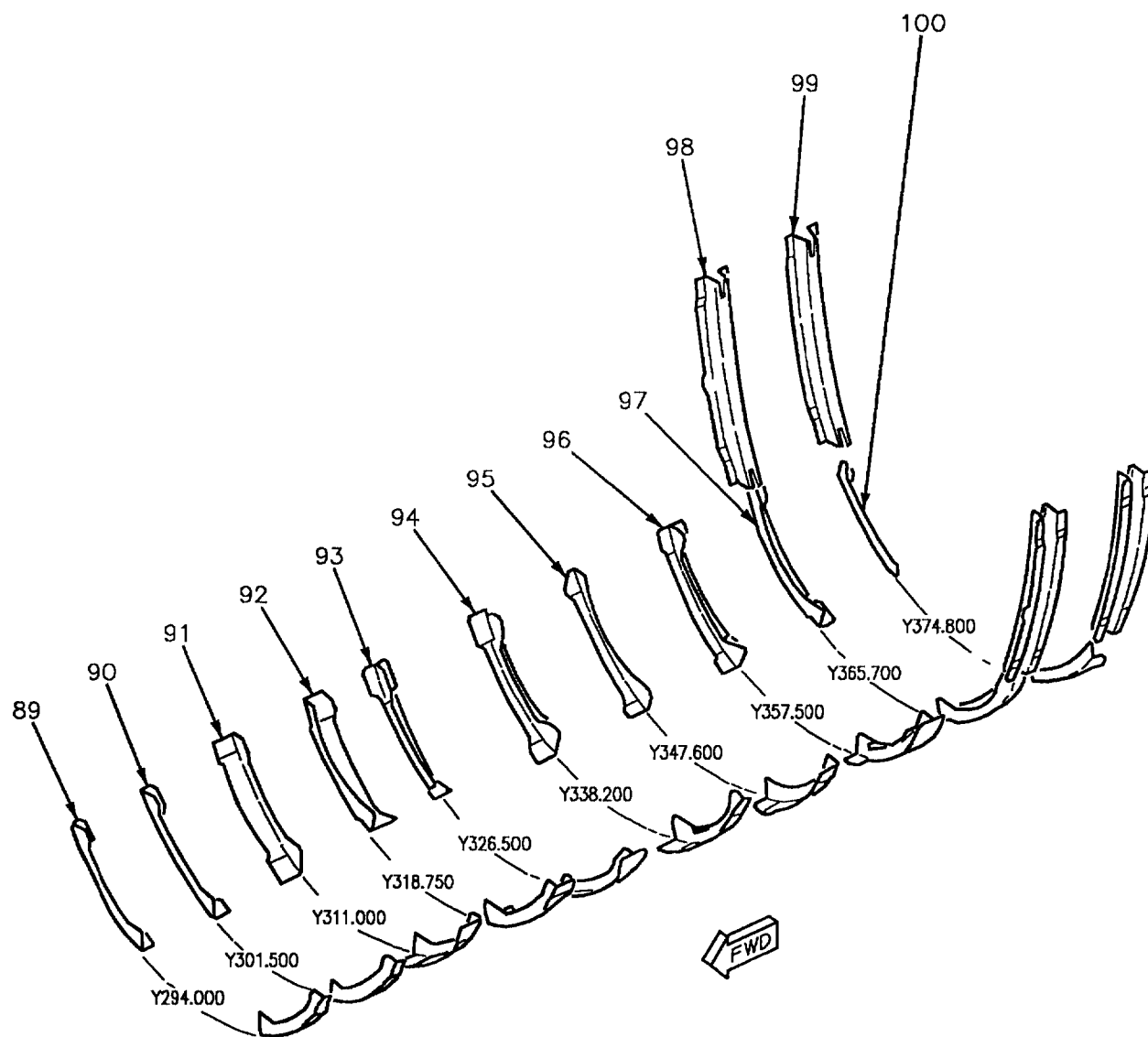


Figure 1. Material Index (Sheet 9)




















Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Angle 74A314018-2010, -2009	0.080 Sheet	7075-T6 Alclad
2	 	Former 74A314018-2020, -2021 74A314018-2024, -2021	0.080 Sheet	7075-T6 Alclad
3		Bracket 74A314018-2025	0.050 Sheet	7075-T6 Alclad
4		Former 74A314019-2008, -2007	0.090 Sheet	7075-T76 Alclad
5	  	Former 74A314019-2013, -2014 74A314019-2013, -2016 74A314019-2013, -2020	0.090 Sheet	7075-T76 Alclad
6		Tee 74A314020-2026, -2025	1MA160D01-10180 Extr	7075-T73 Al Aly
7		Web 74A314020-2002, -2001	0.040 Sheet	7075-T6 Alclad
8		Stiffener 74A314020-2048, -2047	0.080 Sheet	7075-T6 Alclad
9	 	Stiffener 74A314020-2007, -2072 74A314020-2007, -2088	0.080 Sheet	7075-T6 Al Aly
10		Angle 74A314020-2022, -2021	0.063 Sheet	7075-T6 Alclad
11		Stiffener 74A314020-2030, -2029	0.063 Sheet	7075-T6 Alclad
12	 	Stiffener 74A314020-2052, -2051 74A314020-2052, -2097	0.080 Sheet	7075-T6 Al Aly
13		Intercostal 74A314020-2009	0.040 Sheet	7075-T6 Alclad
14		Stiffener 74A314020-2073	0.050 Sheet	7075-T6 Alclad
15		Angle 74A314020-2018, -2079	0.100 Sheet	7075-T76 Alclad

Figure 1. Material Index (Sheet 10)






















Idx No.	Eft	Nomenclature and Part No.	Description	Material
16	 	Stiffener 74A314020-2055, -2034 74A314020-2055, -2081	0.080 Sheet	7075-T6 Alclad
17		Stiffener 74A314020-2073	0.050 Sheet	7075-T6 Alclad
18		Tee 74A314020-2049	1MA160D01-10192 Extr	7075-T73 Al Aly
19	 	Stiffener 74A314020-2035, -2036 74A314020-2036, -2083	0.063 Sheet	7075-T6 Alclad
20		Former 74A314021-2003, -2004	0.090 Sheet	7075-T76 Al Aly
21	       	Web 74A850609-2103 74A850609-9021 74A850609-9023 74A850609-9025 74A850609-9027 74A850609-9029 74A850609-2107 74A850609-2111	0.020 Sheet	7075-T6 Alclad
22		Angle 74A850609-2105	0.040 Sheet	7075-T6 Alclad
23		Channel 74A850609-2061	0.050 Sheet	7075-T6 Alclad
24	 	Angle 74A850609-9015 74A850609-2087	0.050 Sheet	7075-T6 Alclad
25		Channel 74A850609-2059	0.050 Sheet	7075-T6 Alclad
26		Angle 4A850609-2051	0.040 Sheet	7075-T6 Alclad
27		Former 74A314804-2006, -2005	2.25 Plate	7075-T7351 Al Aly
28	 	Former 74A314805-2006, -2005 74A314805-2008, -2005	2.25 Plate	7075-T7351 Al Aly
30		Former 74A314807-2006, -2005	2.25 Plate	7075-T7351 Al Aly

Figure 1. Material Index (Sheet 11)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
29	<div>46</div> <div>43</div>	Former 74A314806-2006, -2005 74A314806-2008, -2005	2.25 Plate	7075-T7351 Al Aly
31	<div>18</div> <div>30</div> <div>31</div> <div>32</div> <div>47</div> <div>25</div> <div>26</div> <div>28</div> <div>29</div>	Bulkhead 74A314340-2014, -9021 74A314340-2014, -9023 74A314340-2014, -2019 74A314340-2014, -2025 74A314340-2028, -2027 74A314340-2028, -9025 74A314340-9027, -2031 74A314340-9027, -2033 74A314340-9027, -2035	Forging	7075-T7352 Al Aly
32		Former 74A314832-2275	0.040 Sheet	7075-T6 Alclad
33		Cover 74A314832-2027	0.040 Sheet	7075-T6 Alclad
34		Support 74A314832-2253	0.040 Sheet	7075-T6 Alclad
35		Channel 74A314832-2014	0.050 Sheet	7075-T6 Alclad
36		Channel 74A314832-2198	0.050 Sheet	7075-T6 Alclad
37		Zee 74A314832-2181	0.050 Sheet	7075-T6 Alclad
38		Support 74A314832-2263	0.050 Sheet	7075-T6 Alclad
39		Bracket 74A314832-2099	0.050 Sheet	7075-T6 Alclad
40	<div>6</div> <div>7</div> <div>33</div> <div>34</div> <div>35</div> <div>44</div> <div>37</div> <div>38</div> <div>40</div> <div>64</div>	Bulkhead 74A314831-2010, -9003 74A314831-2010, -9005 74A314831-9013, -2025 74A314831-9021, -2025 74A314831-9019, -2033 74A314831-9027, -2035 74A314831-9023, -2035 74A314831-2041, -2035 74A314831-2043, -2035 74A314831-2045, -2035	Forging	7075-T 7352 Al Aly

Figure 1. Material Index (Sheet 12)



Idx No.	Eft	Nomenclature and Part No.	Description	Material
42		Former 74A314832-2039	0.040 Sheet	7075-T6 Alclad
41		Plate 74A314832-2125	0.040 Sheet	7075-T6 Alclad
43		Zee 74A314832-2215	0.050 Sheet	7075-0 Alclad
44		Channel 74A314832-2197	0.050 Sheet	7075-0 Alclad
45		Channel 74A314832-2153	0.050 Sheet	7075-0 Alclad
46		Former 74A314832-2227	0.040 Sheet	7075-T6 Alclad
47		Cover 74A314832-2028	0.040 Sheet	7075-T6 Alclad
48		Bracket 74A314659-2003 74A314659-2004	2.00 Plate	6Al-4V Ti Anl
49		Bracket 74A314661-2001	2.00 Plate	6Al-4V Ti Anl
50		Bracket 74A314660-2002	2.00 Plate	6Al-4V Ti Anl
51		Hat 74A314832-2289, -2223	0.080 Sheet	7075-T6 Alclad
52		Channel 74A314832-2047	0.050 Sheet	7075-T6 Alclad
53		Support 74A314920-2001	1.75 Sheet	7075-T7351 Al Aly
54		Beam 74A314832-2051	1MA140D05-10019 Extr	7075-T73511 Al Aly
55		Hat 74A314832-2290	0.080 Sheet	7075-T6 Alclad
56		Channel 74A314832-2056	0.071 Sheet	7075-T6 Alclad
57		Bracket 74A314648-2003 74A314648-2004	2.00 Plate	6Al-4V Ti Anl

Figure 1. Material Index (Sheet 13)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
58		Bracket 74A314660-2001	2.00 Plate	6Al-4V Ti Anl
59		Bracket 74A314662-2001	2.00 Plate	6Al-4V Ti Anl
60	<div>19</div> <div>32</div> <div>36</div> <div>48</div> <div>50</div> <div>65</div> <div>66</div> <div>67</div> <div>64</div>	Bulkhead 74A314343-2003, -2006 74A314343-2011, -2006 74A314343-2007, -2006 74A314343-2013, -2010 74A314343-2013, -2016 74A314343-2009, -2010 74A314343-2009, -2016 74A314343-2017, -2018 74A314343-2019, -2018	3.00 Plate	7075-T7351 Al Aly
61		Web 74A314344-2043, -2055	0.040 Sheet	7075-T6 Alclad
62		Support 74A314403-2001	1.75 Plate	7075-T7351 Al Aly
63		Angle 74A314344-2014, -2013	1MA100D05-10338 Extr	7075-T73511 Al Aly
64		Stiffener 74A314344-2009	1MA163D05-10028 Extr	7075-T73511 Al Aly
65	<div>51</div> <div>53</div>	Support 74A314404-2003 74A314404-2005	1.50 Plate	7075-T7351 Al Aly
66	<div>8</div> <div>9</div>	Tee 74A314344-2005 74A314344-9001	1MA160D05-10220 Extr	7075-T73511 Al Aly
67		Stiffener 74A314344-2007	1MA163D05-10028 Extr	7075-T73511 Al Aly
68	<div>17</div> <div>52</div> <div>51</div>	Stiffener 74A314344-2053 74A314344-2075 74A314344-2053	0.040 Sheet	7075-T6 Alclad
69	<div>16</div> <div>15</div> <div>53</div>	Stiffener 74A314344-2057 74A314344-2027 74A314344-2057	0.040 Sheet	7075-T6 Alclad

Figure 1. Material Index (Sheet 14)


















Idx No.	Eft	Nomenclature and Part No.	Description	Material
70		Tee 74A314344-2045, -2046	1MA160D05-10323 Extr	7075-T73511 Al Aly
71	 	Former 74A314026-2006, -2005 74A314026-2008, -2005	0.071 Sheet	7075-T6 Al Aly
72	 	Former 74A314027-2004, -2003 74A314027-2006, -2003	0.071 Sheet	7075-T6 Al Aly
73		Former 74A314042-2008, -2007	0.071 Sheet	7075-T6 Al Aly
74		Former 74A314028-2002, -2001	0.071 Sheet	7075-T6 Al Aly
75	  	Former 74A314029-2006, -2005 74A314029-9002, -9001 74A314029-2008, -2007	2.750 Plate	7075-T7351 Al Aly
76	 	Former 74A314810-2010, -2009 74A314810-2011, -2009	0.090 Sheet	7075-T76 Al Aly
77		Support 74A314844-2010, -2009	0.063 Sheet	7075-T6 Alclad
78	 	Former 74A314811-2010, -2009 74A314811-2013, -2009	0.080 Sheet	7075-T6 Al Aly
79		Support 74A314840-2008, -2007	3.25 Plate	7075-T7351 Al Aly
80		Former 74A314812-2010, -2009	0.080 Sheet	7075-T6 Al Aly
81		Support 74A314845-2008, -2007	0.063 Sheet	7075-T6 Alclad
82		Former 74A314813-2002, -2001	2.25 Plate	7075-T7351 Al Aly
83	 	Former 74A314814-2004, -2003 74A314814-2006, -2005	2.75 Plate	7075-T7351 Al Aly
84		Intercostal 74A314874-2003, -2004	2.50 Plate	7075-T 7351 Al Aly

Figure 1. Material Index (Sheet 15)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
85		Support 74A314843-2003	2.75 Plate	7075-T7351 Al Aly
86		Intercostal 74A314902-2001, -2002	0.050 Sheet	7075-T6 Alclad 87
87	<div>61</div> <div>62</div> <div>59</div>	Longeron 74A314800-2003, -2002 74A314800-9005, -2002 74A314800-2003, -2002	3.00 Plate	7075-T7351 Al Aly
88		Support 74A314844-2011	0.063 Sheet	7075-T6 Alclad
89		Former 74A314277-2004, -2003	Pressing	7075-T73 Al Aly
90		Former 74A314278-2004, -2003	Pressing	7075-T73 Al Aly
91		Former 74A314279-2004, -2003	Pressing	7075-T73 Al Aly
92	<div>11</div> <div>12</div>	Former 74A314280-2006, -9003 74A314280-2006, -2003	Pressing	7075-T73 Al Aly
93		Former 74A314302-2004, -2003	3.00 Plate	6Al-4V Ti Anl
94		Former 74A314303-2014, -2003	Pressing	7075-T73 Al Aly
95		Former 74A314304-2006, -2003	Pressing	7075-T73 Al Aly
96		Former 74A314385-2008, -2003	Pressing	7075-T73 Al Aly
97		Former 74A314399-2006, -2003	Pressing	7075-T73 Al Aly
98		Former 74A314316-2004, -2003	0.071 Sheet	7075-T6 Al Aly
99		Former 74A314317-2004, -2003	0.071 Sheet	7075-T6 Al Aly
100		Former 74A314400-2004, -2001	0.063 Sheet	7075-T6 Alclad

Figure 1. Material Index (Sheet 16)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
LEGEND				
1		F/A-18A.		
2		F/A-18A 161353 THRU 162444.		
3		F/A-18A 162445 AND UP.		
4		F/A-18B.		
5		F/A-18A 161361 AND UP, F/A-18B 161354 AND UP.		
6		F/A-18B 161354 THRU 161357.		
7		F/A-18B 161360.		
8		161360 AND UP.		
9		161363 THRU 161359.		
10		F/A-18A 161736 THRU 161979.		
11		161353 THRU 161361.		
12		161362 AND UP.		
13		F/A-18B 161740 THRU 161932.		
14		F/A-18A 161980 THRU 162881, F/A-18B 161938 AND UP.		
15		F/A-18A 161353 THRU 161528.		
16		F/A-18A 161702 AND UP.		
17		F/A-18B 161354 THRU 161360.		
18		F/A-18A 161353 THRU 161359.		
19		161353 THRU 161528.		
20		F/A-18A 161353 THRU 161519.		
21		F/A-18A 161520 AND UP.		
22		F/A-18A 161353 THRU 161715, F/A-18B 161354 AND 161355.		
23		F/A-18B 161356 THRU 161711.		
24		F/A-18A 161716 THRU 161735.		
25		F/A-18A 161925 THRU 161968.		
26		F/A-18A 161969 THRU 161987.		
27		F/A-18B 161740 AND UP.		
28		F/A-18A 162394 THRU 162414.		
29		F/A-18A 162415 AND UP.		
30		F/A-18A 161361 AND 161362.		
31		F/A-18A 161363 THRU 161528.		
32		F/A-18A 161702 THRU 161736.		
33		F/A-18B 161704 THRU 161711.		
34		F/A-18B 161714 THRU 161733.		
35		F/A-18B 161740 THRU 161924.		
36		F/A-18B 161704 THRU 161733.		
37		F/A-18B 162402.		
38		F/A-18B 162408 THRU 162413.		
39		F/A-18A 161353 THRU 161744.		
40		F/A-18B 162419 AND 162427.		
41		Two Required Left Side.		
42		One Required Right Side.		
43		F/A-18B 161932 AND UP.		
44		F/A-18B 161932 THRU 161947.		
45		F/A-18A 161741 AND UP.		

Figure 1. Material Index (Sheet 17)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
46		F/A-18B 161354 THRU 161924.		
47		F/A-18A 161737 THRU 161761.		
48		F/A-18A 161737 THRU 161987.		
49		F/A-18A 161702 THRU 161739.		
50		F/A-18A 162394 THRU 162863.		
51		F/A-18B.		
52		F/A-18B 161704 AND UP.		
53		F/A-18B 161354 AND UP.		
54		F/A-18A 161353 THRU 161987.		
55		F/A-18A 162394 AND UP.		
56		F/A-18A 161745 THRU 161973.		
57		F/A-18A 161974 AND UP.		
58		F/A-18B 161354 THRU 161947.		
59		F/A-18B 162402 AND UP.		
60		F/A-18B 161354 THRU 161733.		
61		F/A-18B 161354 THRU 161746.		
62		F/A-18B 161924 THRU 161947.		
63		F/A-18A 162882 AND UP.		
64		F/A-18B 162836 AND UP.		
65		F/A-18B 161740 THRU 161947.		
66		F/A-18B 162402 THRU 162427.		
67		F/A-18A 162865 AND UP.		
68		F/A-18A 161520 AND UP; ALSO 161353 THRU 161519 AFTER F18 AFC 027.		

Figure 1. Material Index (Sheet 18)

ORGANIZATIONAL AND DEPOT MAINTENANCE

STRUCTURE REPAIR

FORWARD FUSELAGE LONGERONS AND STRINGERS

Reference Material

Aircraft Corrosion Control	A1-F18AC-SRM-500
Priming Procedures	WP011 00
Windshield, Canopy, and Cockpit Finish System	WP021 00

Alphabetical Index

Subject	Page No.
Damage Evaluation	1
Negligible Damage	1
Repairable Damage	1
Repairs	1
Replacement	1
Slide Block	1

Record of Applicable Technical Directives

None

1. **DAMAGE EVALUATION.** See figure 1 and 2.

Support Equipment Required

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The types of material used are shown on figure 1 and 2.

None

3. **NEGLECTIBLE DAMAGE.** Damage requires depot engineering disposition.

4. **REPAIRABLE DAMAGE.** Damage requires depot engineering disposition.

5. **REPAIRS.**

6. Repairs require depot engineering disposition.

7. **REPLACEMENT.**

8. **SLIDE BLOCK.** See figure 3. Slide block is fabricated at depot maintenance.

Materials Required

Specification or Part Number

Nomenclature

AMS3667, 0.188

Tetrafluoroethylene (TFE)

Inch Sheet

CCC-C-440 TYPE 1
CLASS 1

Cheesecloth

MIL-C-38736

Cleaning Compound

EPON 828

Adhesive

VERSAMID 125

Resin, Polyamide

H-B-118

Brush, Artist's

TY3CL25TCS21/2

A-A-883, TYPE 1
1/2 INTape, Pressure
Sensitive

Materials Required (Continued)

Specification or
Part Number

Nomenclature

HL655-5-12

Pin - F/A-18A

HL655-5-11

Pin - F/A-18B

NAS1291C08M

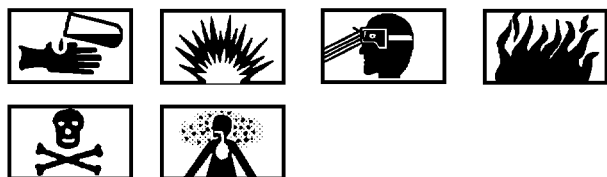
Nut

AN960JD6L

Washer

a. Remove nut, washer and pin securing slide block to 74A314047 filler.

b. Remove damaged slide block.



Cleaning Compound, MIL-C-38736

18

c. Clean area where slide block was installed with clean cheesecloth moistened with MIL-C-38736 cleaning compound.

d. Apply primer coating as required to area where slide block was removed (A1-F18AC-SRM-500, WP011 00).

e. Fabricate new slide block from TFE 0.188 inch sheet stock material to dimensions shown on detail A.

f. Etch bottom surface of slide block.

g. Clean etched surface with clean cheesecloth moistened with MIL-C-38736 cleaning compound.

h. Prepare adhesive:



Adhesive, EPON828

19



Polamide Resin, VERSAMID 125

20

(1) Weigh out equal parts of EPON 828 and VERSAMID 125.

NOTE

Adhesive will have approximately 20-30 minutes pot life.

(2) Combine the two preweighted components in one container and mix thoroughly.

NOTE

Make sure bonding surfaces are clean. Fingerprint contamination can cause an unsatisfactory bond.

i. Brush apply an extremely thin but continuous film of adhesive to both bonding surfaces.

j. Position slide block on 74A314047 filler.

k. Work out all voids, bubbles and excess adhesive.

l. Apply pressure sensitive tape over slide block to provide sufficient pressure and to prevent slippage or misalignment during cure cycle.

m. Cure adhesive using one of the following:

(1) 24 hours at room temperature.

(2) 3 hours at $150 \pm 25^\circ \text{F}$.

(3) 1 hour at $225 \pm 25^\circ \text{F}$.

n. Remove pressure sensitive tape.

o. Apply finish system as required (A1-F18AC-SRM-500, WP021 00).

p. Install pin, washer and nut.

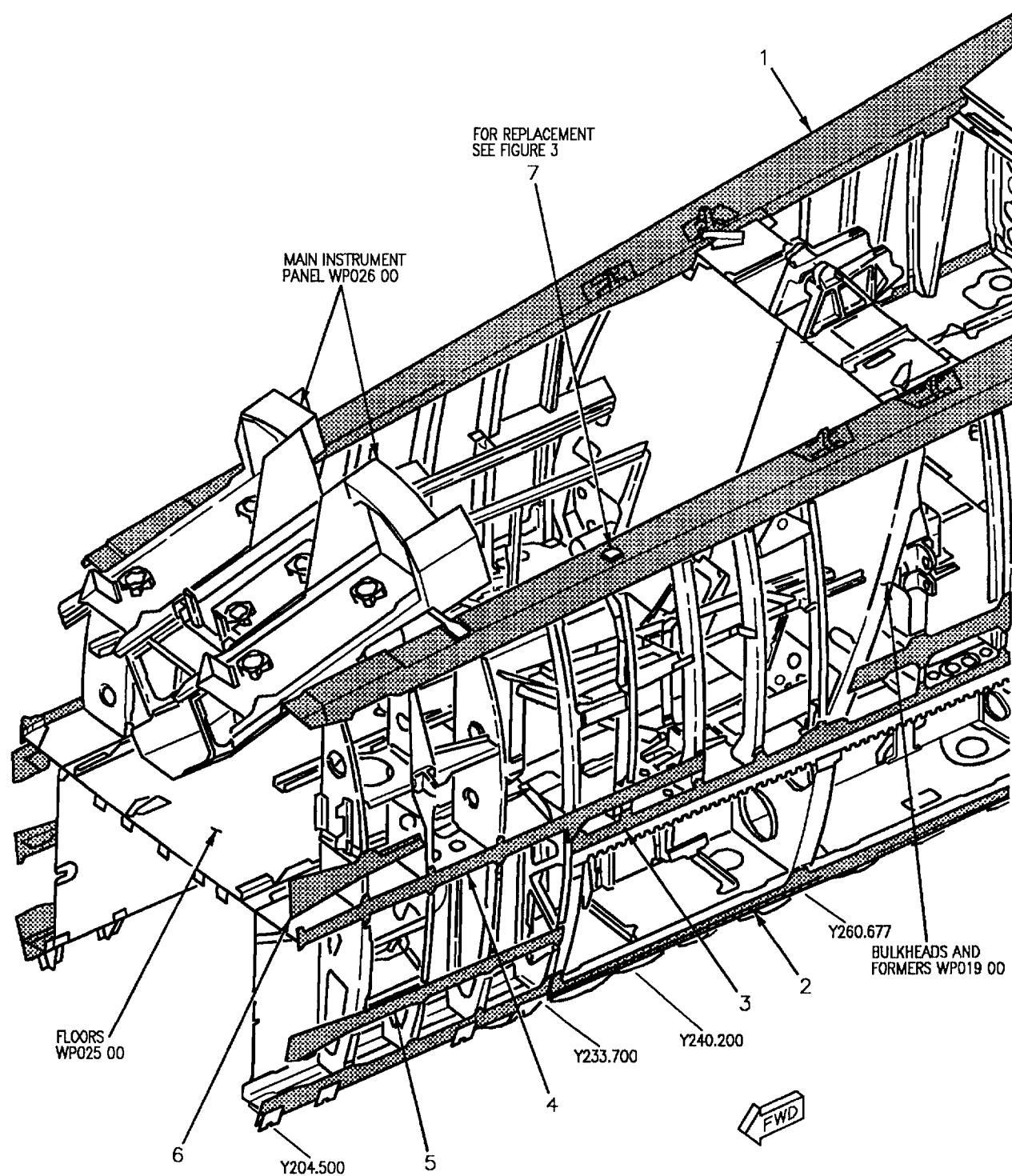


Figure 1. Material Index - F/A-18A (Sheet 1)

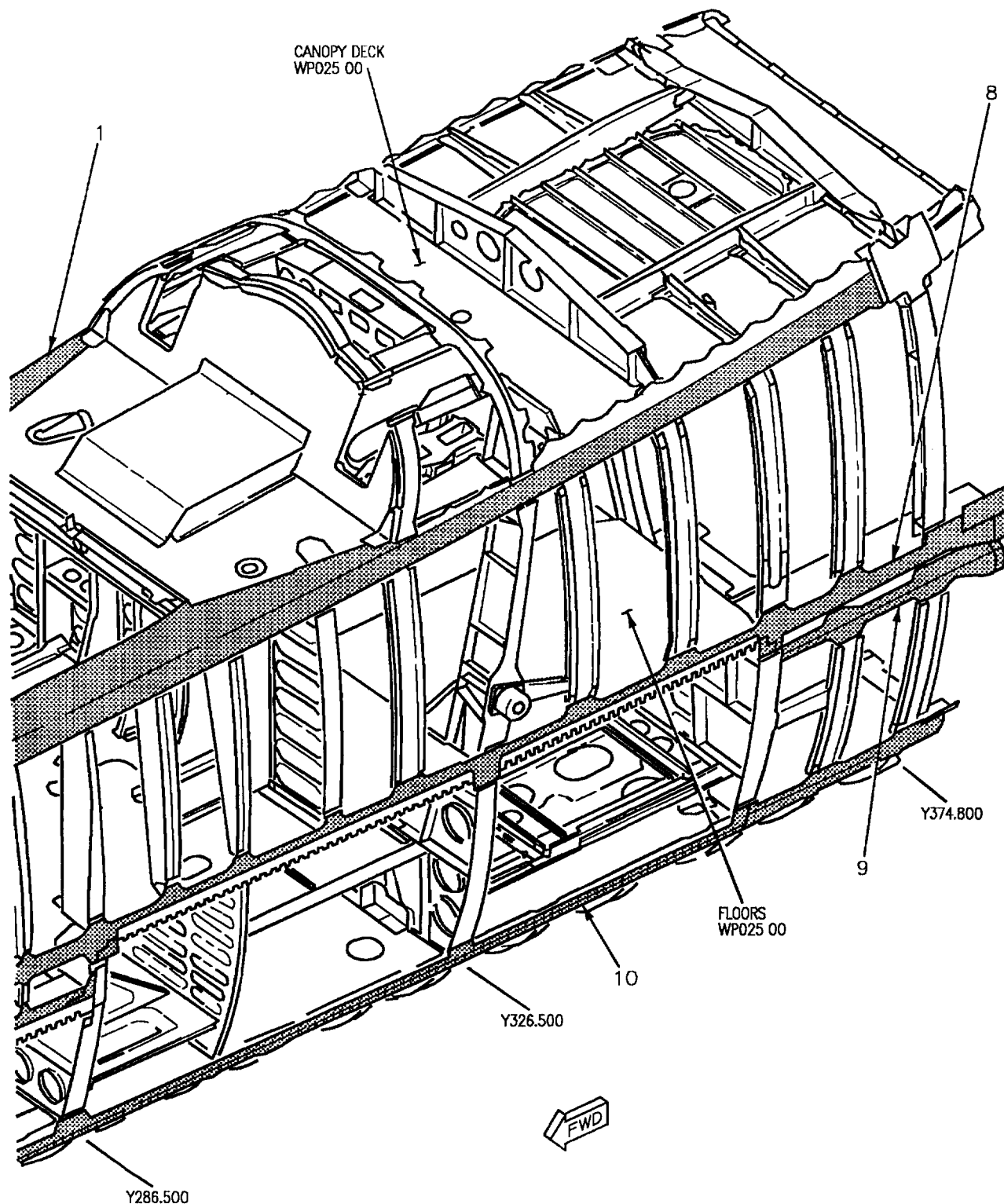


Figure 1. Material Index - F/A-18A (Sheet 2)

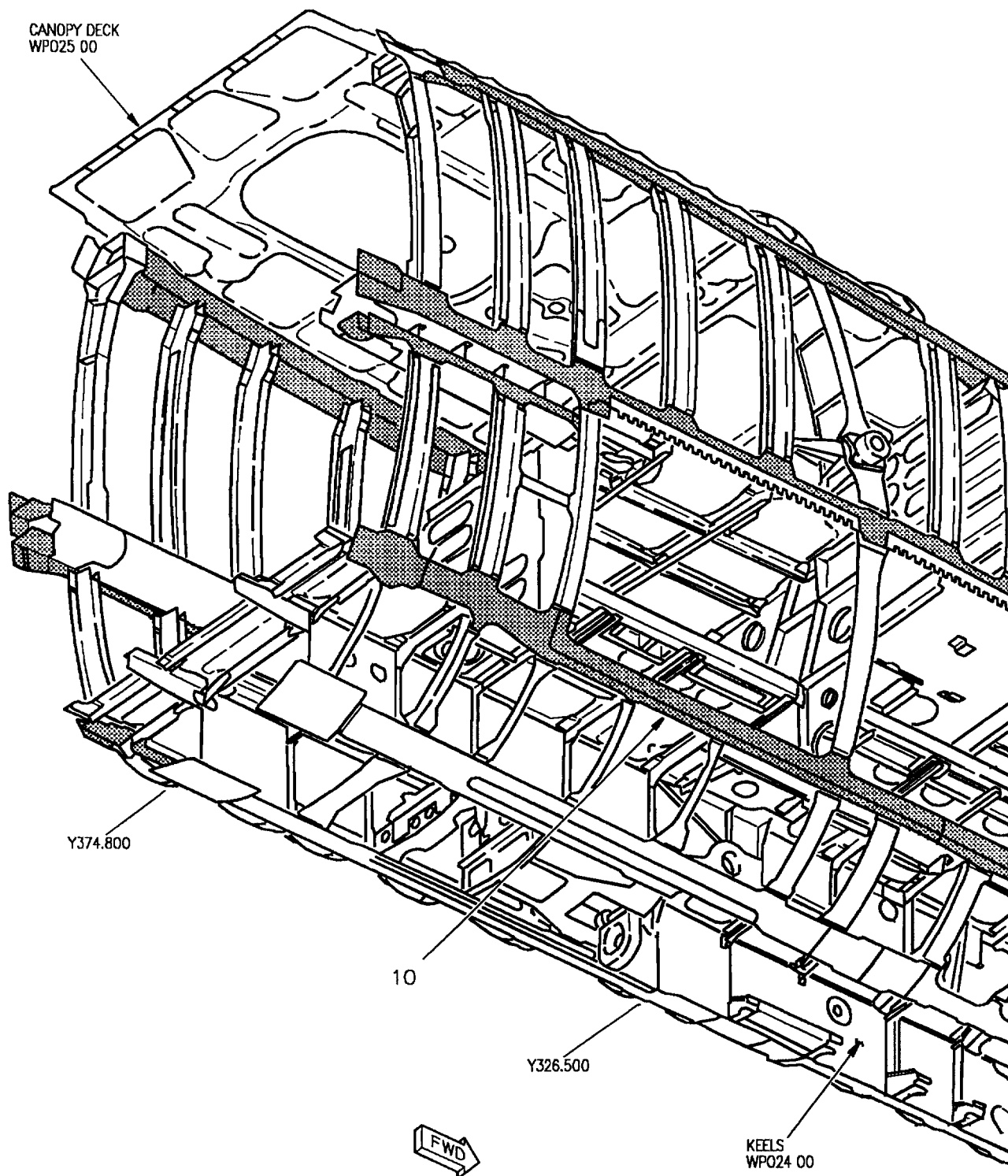


Figure 1. Material Index - F/A-18A (Sheet 3)

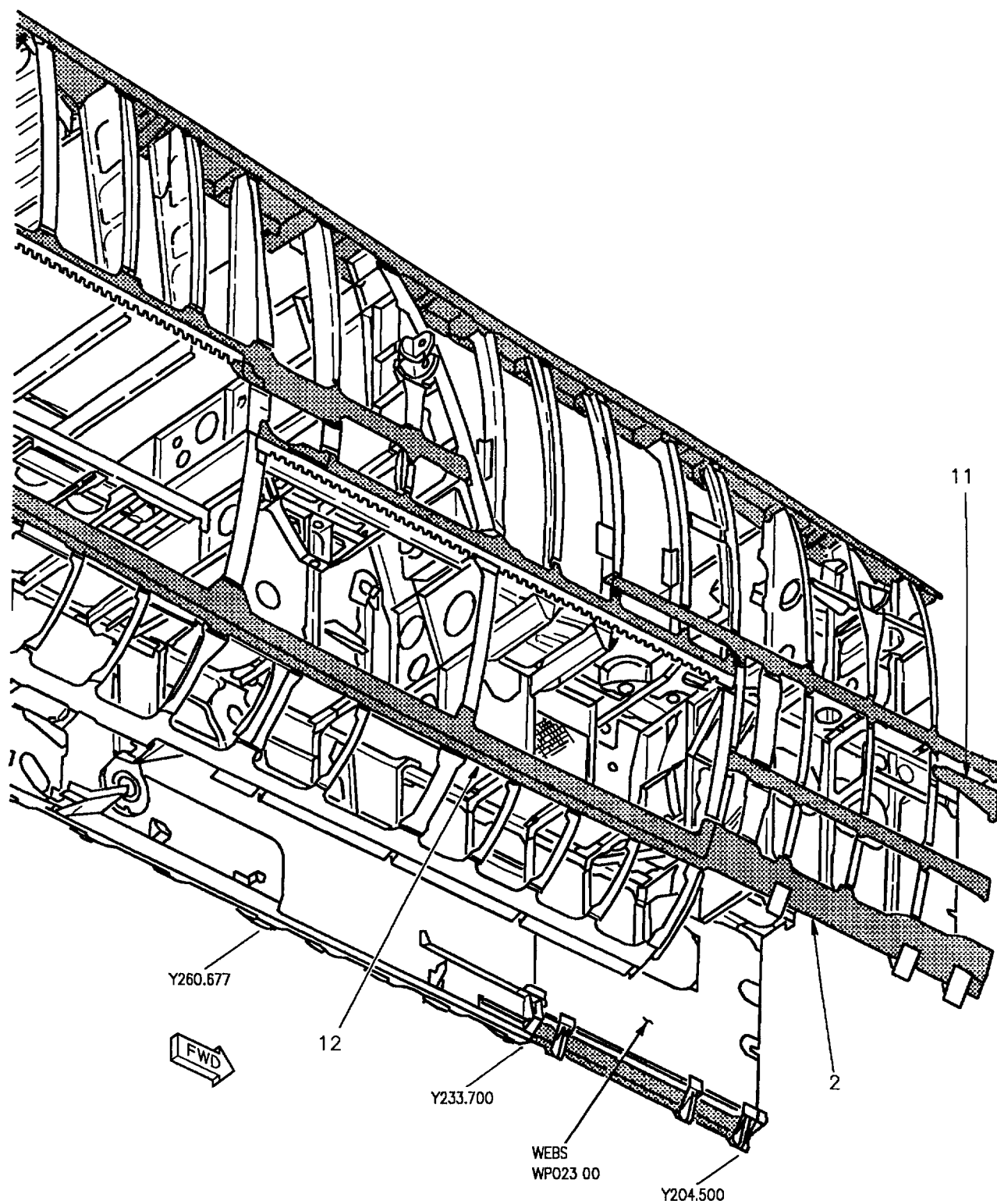


Figure 1. Material Index - F/A-18A (Sheet 4)




















Idx No.	Eft	Nomenclature and Part No.	Description	Material
1 R L L	   	Longeron 74A314010-2004, -2003 74A314010-2008 74A314010-2007 74A314010-9021	3.00 Plate	7075-T7351 Al Aly
2 L L L R R	      	Longeron 74A314620-2009, -2010 74A314620-2011, -2012 74A314620-2013 74A314620-2015 74A314620-2017 74A314620-2014 74A314620-2016	1MA164D01-10023 Extr	7075-T76 Al Aly
3		Longeron 74A314393-2005, -2008	1MA164D05-10039 Extr	7075-T73511 Al Aly
4		Longeron 74A314213-2003, -2004	1MA164D06-10021 Extr	7075-T76511 Al Aly
5		Stringer 74A314202-2005, -2003	1MA164D05-10019 Extr	7075-T73511 Al Aly
6		Stringer 74A314032-2003	1MA164D06-10022 Extr	7075-T76511 Al Aly
7		Slide Block 74A310002-2013	0.188 Sheet	Tetrafluoroethylene (TFE)
8	  	Longeron 74A314345-2011, -2016 74A314345-9017, -9018 74A314345-2017, -2018	1MA164D01-10036 Extr	7075-T76 Al Aly
9		Angle 74A314398-2001, -2002	0.063 Sheet	7075-T6 Alclad
10	  	Longeron 74A314346-2005, -2006 74A314346-2007, -2008 74A314346-2009, -2010	1MA164D01-10025 Extr	7075-T76 Al Aly
11		Stringer 74A314033-2005	1MA164D06-10020 Extr	7075-T76511 Al Aly
12	 	Longeron 74A314619-2019, -2011 74A314619-2021, -2011	1MA164D01-10024 Extr	7075-T76 Al Aly

Figure 1. Material Index - F/A-18A (Sheet 5)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
LEGEND				
1		F/A-18A 161353 THRU 161519.		
2		F/A-18A 161520 AND UP.		
3		F/A-18A 161353 THRU 161528.		
4		F/A-18A 161702 THRU 161736.		
5		F/A-18A 161737 THRU 162863.		
6		F/A-18A 161353 THRU 161736.		
7		F/A-18A 161520 THRU 161759, 162394 AND UP.		
8		F/A-18A 161760 THRU 161987.		
9		F/A-18A 161737 THRU 161964, 161968, 161971, 161973, 161976 AND 161979.		
10		F/A-18A 161965 THRU 161967, 161969, 161970, 161972, 161974, 161975, 161977, 161978, 161980 THRU 161987.		
11		F/A-18A 161737 THRU 161944, 161946 THRU 161955, 161957, 161961, 161964, 161968, 161971, 161973, 161976 AND 161979.		
12		F/A-18A 161945, 161956, 161958 THRU 161960, 161962, 161963, 161965 THRU 161967, 161969, 161970, 161972, 161974, 161975, 161977, 161978, 161980 AND UP.		
13		F/A-18A 161353 THRU 161939, 161941, 161944, 161945, 161984 THRU 162863.		
14		F/A-18A 161940, 161942, 161946 THRU 161983.		
15		F/A-18A 162394 AND UP.		
16		F/A-18A 162865 AND UP.		
17		F/A-18A 161353 THRU 161987.		

Figure 1. Material Index - F/A-18A (Sheet 6)

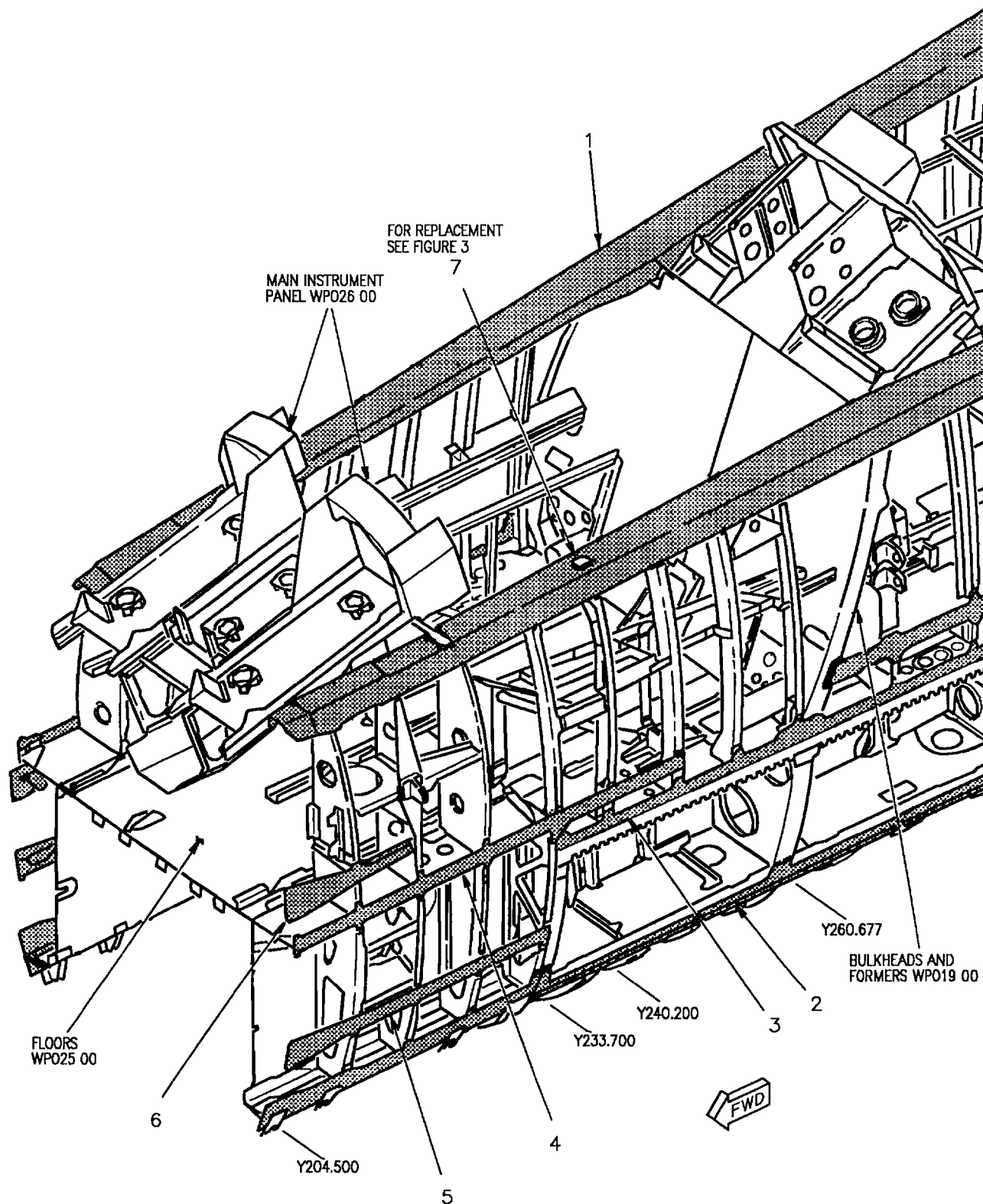


Figure 2. Material Index - F/A-18B (Sheet 1)

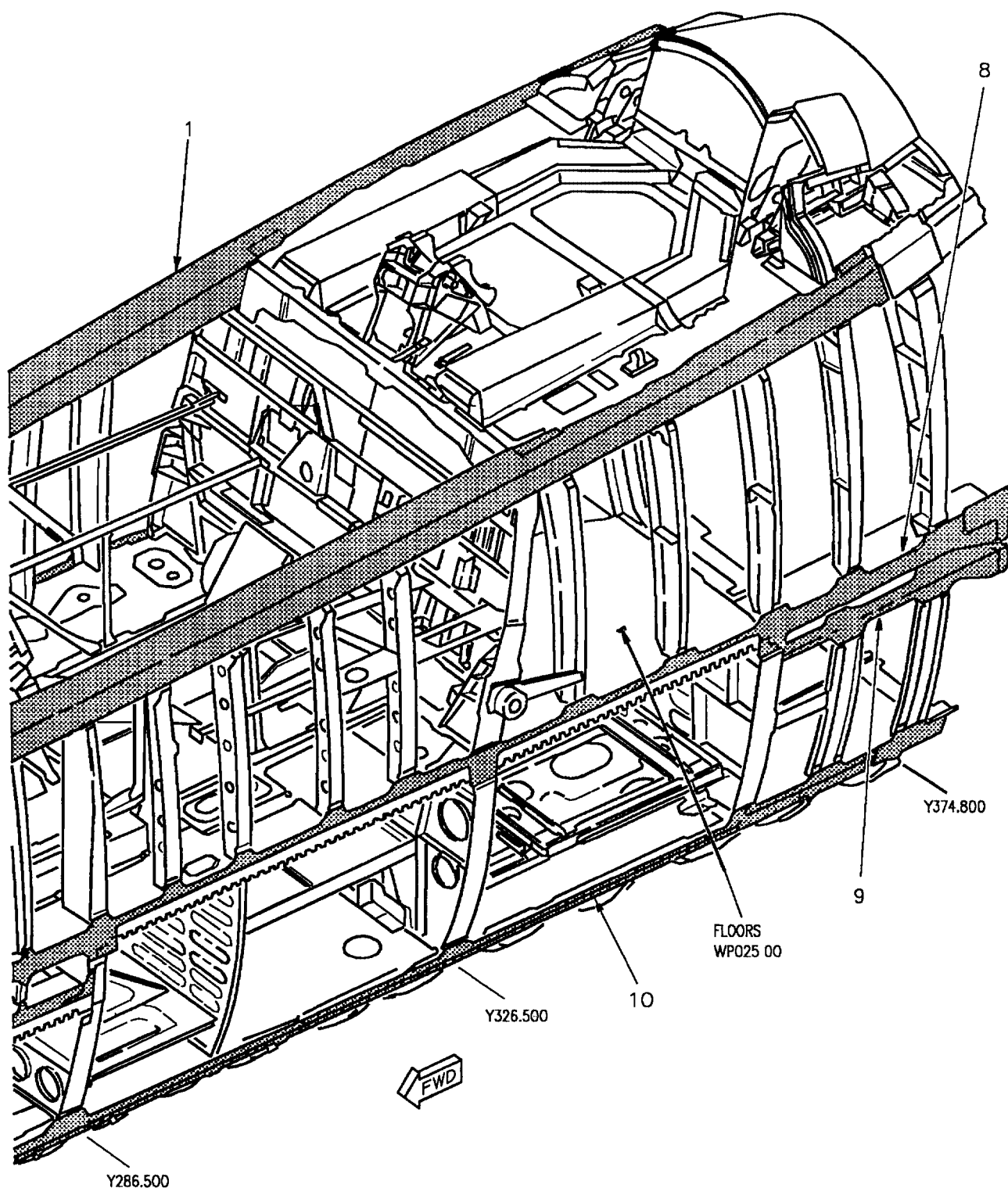


Figure 2. Material Index - F/A-18B (Sheet 2)

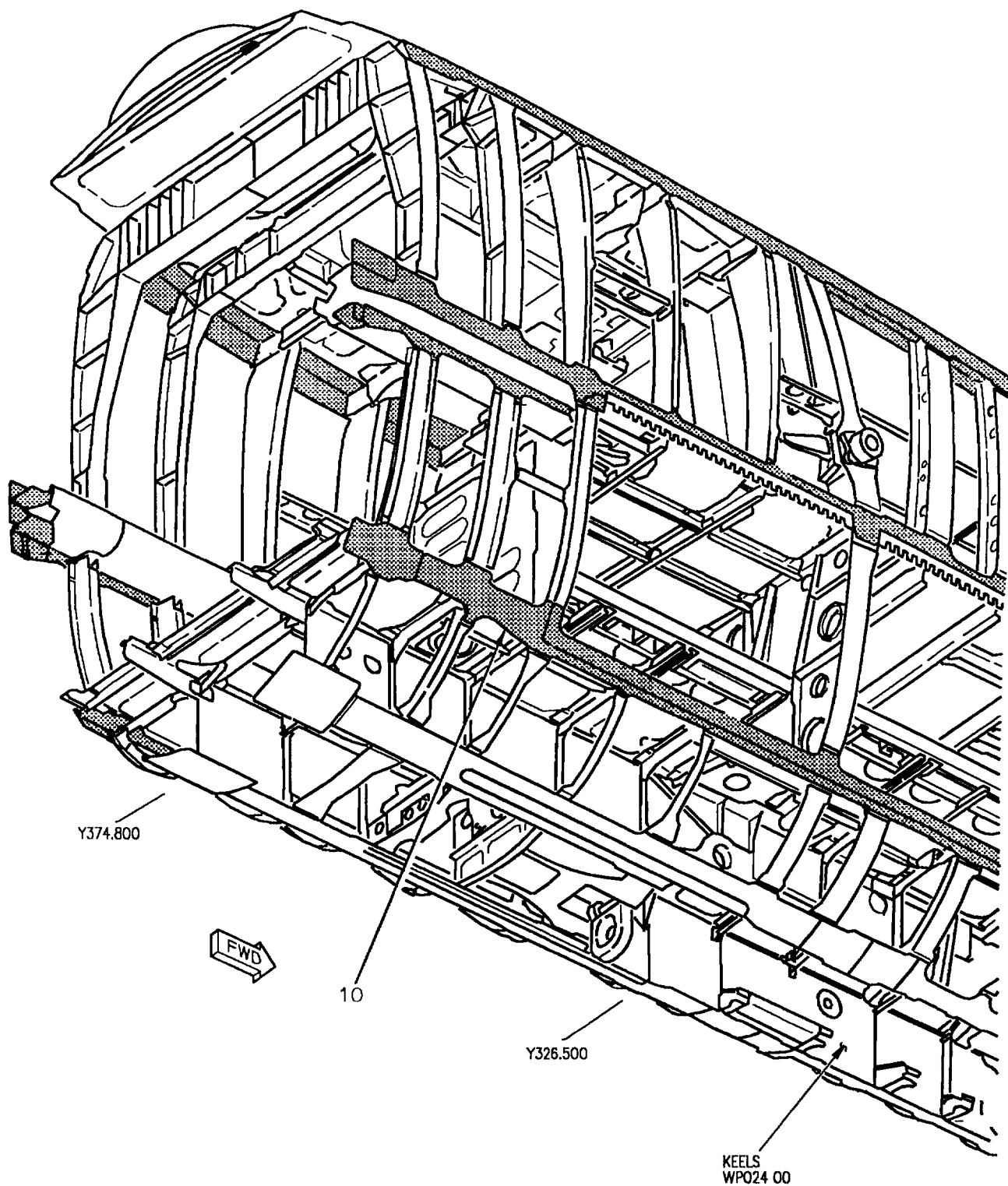


Figure 2. Material Index - F/A-18B (Sheet 3)

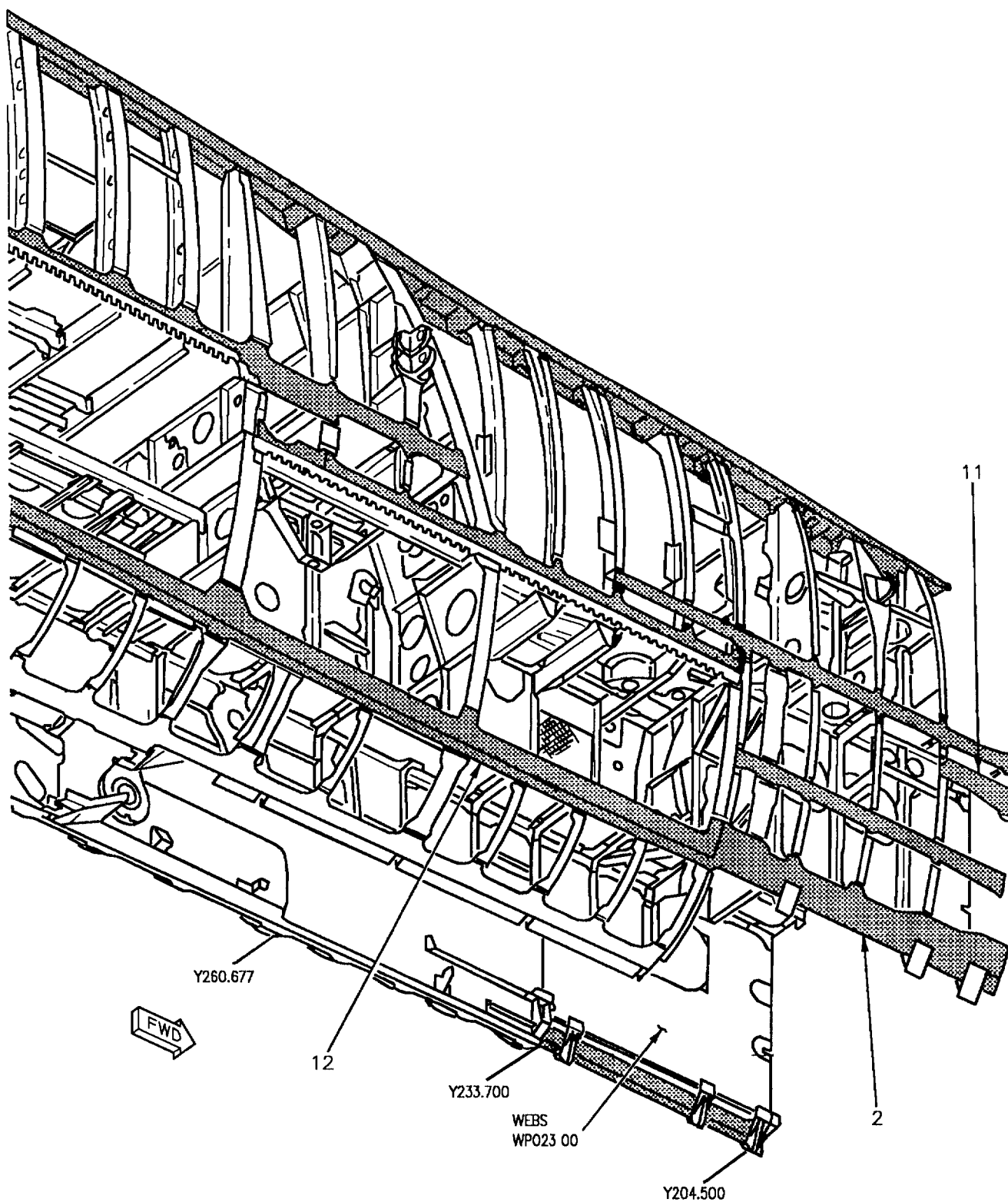


Figure 2. Material Index - F/A-18B (Sheet 4)





















Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Longeron 74A314800-2002, -2003	3.00 Plate	7075-T7351 Al Aly
2	   	Longeron 74A314620-2009, -2010 74A314620-2011, -2012 74A314620-2013, -2014 74A314620-2017, -2016	1MA164D01-10023 Extr	7075-T76 Al Aly
3		Longeron 74A314393-2005, -2008	1MA164D05-10039 Extr	7075-T73511 Al Aly
4		Longeron 74A314213-2003, -2004	1MA164D06-10021 Extr	7075-T76511 Al Aly
5		Stringer 74A314202-2005, -2003	1MA164D05-10019 Extr	7075-T73511 Al Aly
6		Stringer 74A314032-2003	1MA164D06-10022 Extr	7075-T76511 Al Aly
7		Slide Block 74A310002-2013	0.188 Sheet	Tetrafluoroethylene (TFE)
8	 	Longeron 74A314833-2005, -2008 74A314833-2009, -2010	1MA164D01-10036 Extr	7075-T76 Al Aly
9		Angle 74A314398-2001, -2002	0.063 Sheet	7075-T6 Alclad
10	  	Longeron 74A314346-2005, -2006 74A314346-2007, -2008 74A314346-2009, -2010	1MA164D01-10025 Extr	7075-T76 Al Aly
11		Stringer 74A314033-2005	1MA164D06-10020 Extr	7075-T76511 Al Aly
12	 	Longeron 74A314619-2019, -2011 74A314619-2021, -2011	1MA164D01-10024 Extr	7075-T76 Al Aly
<p style="text-align: center;">LEGEND</p> <p> F/A-18B 161354 THRU 161360.  F/A-18B 161704 THRU 161733.  F/A-18B 161740 THRU 162427.  F/A-18B 161354 THRU 161733.  F/A-18B 161740 THRU 161947.  F/A-18B 161354 THRU 162427.  F/A-18B 162836 AND UP.  F/A-18B 162402 AND UP.  F/A-18B 161354 THRU 161947.</p>				

Figure 2. Material Index - F/A-18B (Sheet 5)

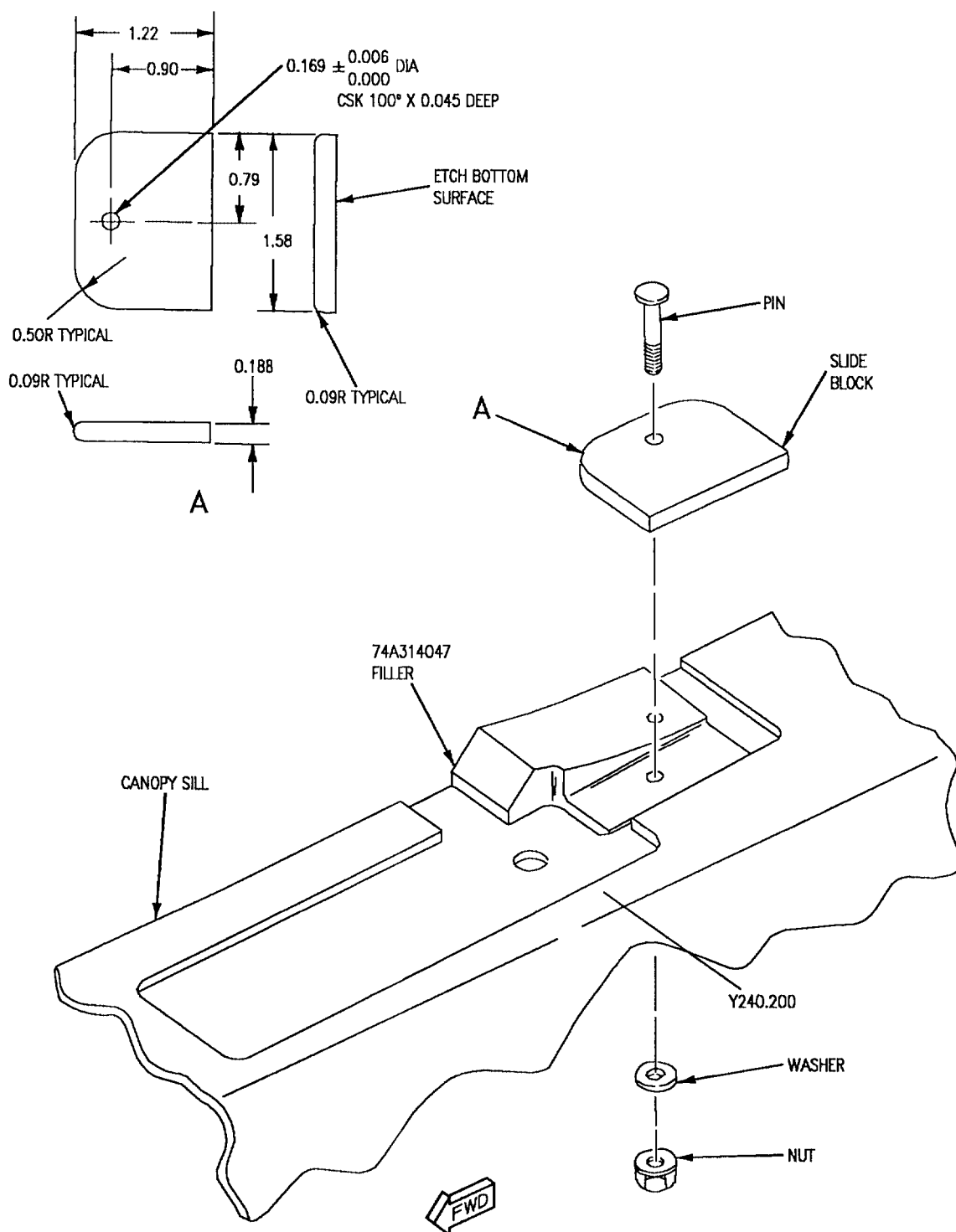


Figure 3. Slide Block Replacement

INTERMEDIATE MAINTENANCE

STRUCTURE REPAIR

STRAIN GAGES

Reference Material

Plane Captain Manual	A1-F18AC-PCM-000
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Structure Repair, General Information	A1-F18AC-SRM-200
Adhesive, Cement, and Sealant; Preparation and Application	WP011 00
Structure, Illustrated Parts Breakdown, Forward Fuselage	A1-F18AC-SRM-420
Fuselage Section-Fwd Fus, Side Panel, Aft	FIG042 00
Aircraft Corrosion Control	A1-F18AC-SRM-500
Finish System	WP012 00
Maintenance Status Display and Recording System	A1-F18AC-580-300
Strain Gages Part No. DTD2684	WP006 00
Wiring Repair With Parts Data, General Wiring Repair Procedures	A1-F18A()-WRM-000
Installation Practices, Aircraft Electrical and Electronic Wiring	NAVAIR 01-1A-505

Alphabetical Index

Subject	Page No.
Description	2
Aircraft Preparation	2
Application of Sealing Compound	6
Bonding Surface Preparation	3
E92110 Bonding Fixture Preparation	4
Final Aircraft Preparation	7
Preparation of Adhesive	4
Resistance and Null Testing of New Strain Gages	4
Strain Gage Installation	5
Strain Gage Wire Preparation	3

Record of Applicable Technical Directives

None

Support Equipment Required

Support Equipment Required (Continued)

Part Number or Type Designation	Nomenclature	Part Number or Type Designation	Nomenclature
-	Vacuum Cleaner	-	Scale, Balance, Trip, 0.10 Gram Graduations
-	DC Power Supply Unit	-	Plastic Scraper
-	Digital Voltmeter	160198-1	Strain Sensor
-	Digital Ohmmeter		Bonding Fixture Kit

Support Equipment Required (Continued)

Part Number or Type Designation	Nomenclature
160287	75 Gram Weight
160199	F-18 Null Test Stainless Steel Plate
-	Hot Air Heater

Materials Required**NOTE**

Alternate item specifications or part numbers
are shown indented

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
■ TT-I-735	Isopropyl Alcohol
AA1048TY1CL1 GRIT320X9X11	Cloth, Abrasive
O-C-265	Distilled Water
AA47	Scouring Powder
■ A4000 (CAGE 53912)	Release Film
100SG30TR	Plastic Film
EA 956	Adhesive
UU-C-806, TYPE 1, STYLE A, CLASS 1	Cup, Paper
GG-D-226 TYPE 1	Depressor, Tongue
BB-N-411, TYPE 1, CLASS 1, GRADE A or B	Nitrogen, Technical
PATTERN 30	Cloth, Nylon
MIL-S-81733, TYPE 1-2	Sealing Compound
MIL-S-83430, CLASS B-1/2	Sealing Compound
A-A-883, TYPE 1 1/2 IN.	Tape, Pressure Sensitive
M23053/5-102-9	Thermofit Sleeve, 1/16 Inch Diameter Color White
M23053/5-104-0	Thermofit Sleeve, 1/8 Inch Diameter Color Black
M23053/5-105-9	Thermofit Sleeve, 3/16 Inch Diameter Color White

1. DESCRIPTION.**NOTE**

E92110 Bonding Fixture is part of the
160198-1 Strain Sensor Bonding Fixture Kit.

2. Strain gages are sensitive fatigue monitoring units that measure the amount of stress a specific area is receiving. Located on 74A314612 lower right hand keel web are the primary and backup strain gages. The primary strain gage is bonded to the in-board surface of the keel web at Y359.50 and is spliced into the maintenance status display and recording system wiring. The backup strain gage is bonded to the inboard surface of the keel web at Y360.73 and is capped and stowed to be used if the primary strain gage fails. Procedures below provide for removal and installation of primary and backup strain gages. For strain gage part requisitioning (A1-F18AC-SRM-420, FIG 042 00).

3. AIRCRAFT PREPARATION. See figure 1.

a. Make sure electrical and hydraulic power is off (A1-F18AC-LMM-000).

b. Make sure safety devices required for ground operations are installed (A1-F18AC-PCM-000).

c. Remove door 33 (A1-F18AC-LMM-010).



Be careful when removing strain gages not to damage inboard surface of keel web.

d. Remove primary and backup strain gage from inboard surface of keel web using scraper.

e. Remove ground wire and disconnect strain gage at wire bundle splice WTF008 located in door 33 right keel web.

NOTE

Strain gages are not reusable.

f. Pull strain gage lead wiring from sealant and dispose of gages.

g. Remove any residual sealant from keel web structure using plastic scraper.

h. Do bonding surface preparation, this WP.

4. **BONDING SURFACE PREPARATION.** See figure 2.



Make sure all sealant on inboard surface of keel web is removed to allow fixture to be correctly positioned.

a. Remove any residual adhesive and/or sealant, remaining from previously installed strain gages, using a plastic scraper. Abrasive cloth may be required for complete removal of adhesive.



Isopropyl Alcohol, TT-I-735

2

b. Degrease keel web surface using clean cheesecloth moistened with isopropyl alcohol.

NOTE

Do not allow isopropyl alcohol to evaporate on keel web surface before wiping.

c. Immediately wipe surface dry with clean dry cheesecloth.

d. Temporarily install keel web locator (detail 5) per paragraph 9, step e, to get correct strain gage location. Remove locator after location is noted.

NOTE

Do not sand in circular motion. Only 1 square inch area shall be sanded for each strain gage.

e. Wet sand, in perpendicular directions, a 1 inch square area per location of each strain gage on the keel web using abrasive cloth and distilled water.

f. Remove sanding residue using clean cheesecloth moistened with distilled water.

g. Scour bonding surfaces on keel web using non-chlorinated scouring powder and clean cheesecloth moistened with distilled water.

h. Repeat steps e, f, and g to make sure clean bonding surface exists on keel web.

i. Remove all scouring residue using clean cheesecloth moistened with distilled water.

j. Check for a water-break free surface by spraying a small amount of distilled water onto keel web bonding surfaces. If water breaks or balls up, instead of remaining continuous, repeat steps e thru j.



Technical Nitrogen, BB-N-411, Type 1, Class 1, Grade A or B

21

NOTE

Bonding surface can be force dried using dry, oil free nitrogen or other inert gas.

k. Allow bonding surface to air dry.

l. Do strain gage wire preparation, this WP.

5. **STRAIN GAGE WIRE PREPARATION.** See figure 3.



The strain gage is a delicate electrical device. Use care when handling to avoid damage.

a. Mark wire numbers on 1/16 inch diameter white thermofit sleeves (NAVAIR 01-1A-505). For wire number identification (A1-F18A()-WRM-000).

b. Mark wire bundle number on 3/16 inch diameter white thermofit sleeve (NAVAIR 01-1A-505). For wire bundle number identification (A1-F18A()-WRM-000).

c. Cut a piece of 1/8 inch diameter black thermofit sleeving to dimension shown on figure.



Do not apply heat directly to strain gage. Damage to strain gage will occur if excessive heat is applied to sensor end.

d. Heat shrink forward wire number identification sleeves to dimension shown on figure (NAVAIR 01-1A-505). For correct wire number to wire color identification (A1-F18A()-WRM-000).

NOTE

Keep strain gage wire leads flat 10.50 inches from wire exit side of sensor when shrinking 1/8 inch diameter thermofit sleeving.

e. Cover strain gage wire leads with 1/8 inch diameter thermofit sleeving and heat shrink to dimension shown on figure (NAVAIR 01-1A-505).

f. Heat shrink wire bundle identification sleeve to dimension shown on figure (NAVAIR 01-1A-505).

g. Heat shrink aft wire number identification sleeves to dimension shown on figure (NAVAIR 01-1A-505). For correct wire number to wire color identification (A1-F18A()-WRM-000).

h. Do resistance and null testing of new strain gage, this WP.

6. RESISTANCE AND NULL TESTING OF NEW STRAIN GAGE. See figure 4.

a. Do resistance test using a digital ohmmeter. Resistance between wire leads shall be approximately as listed below:

(1) Wire leads B - D should equal 980 to 1020 ohms.

(2) Wire leads A - C should equal 980 to 1020 ohms.

NOTE

Resistance test between wire leads A - GROUND is not applicable when testing new strain gage before installation.

(3) Wire leads A - GROUND should equal 500K ohms minimum.

b. Do null test using digital voltmeter and DC power supply unit:

NOTE

Record all null test readings for each strain gage on attached card. Keep card attached to strain gage until strain gage is installed and final null offset test is completed.

(1) Position sensing side of strain gage on clean flat stainless steel plate surface.

(2) Place a 75 gram weight on strain gage.

(3) Apply 10 VDC across wire leads A - C.

(4) Read millivolt (mV) output across wire leads B - D. Acceptable reading is from +10mV to -10mV. Record reading on card.

c. Do bonding fixture preparation, this WP.

NOTE

E92110 Bonding Fixture is part of the 160198-1 Strain Sensor Bonding Fixture.

7. E92110 BONDING FIXTURE PREPARATION. See figure 2.

a. Install swivel assembly (detail 4) into 0.375 hole in forward and aft hole of clamp assembly (detail 3).

NOTE

Before installing clamp assembly (detail 3), turn swivel assembly (detail 4) counterclockwise until end of pad (detail 8) will clear strain gage cutout in locator assembly.

b. Do preparation of adhesive, this WP.

8. PREPARATION OF ADHESIVE.



Adhesive, EA956

22

NOTE

Adhesive has a pot life of 45 minutes. Do not mix more material than can be used in 30 minutes. The amount in step a is more than is needed to bond two strain gages. The amount in step a may be increased or decreased by multiplying or dividing each part by the same number.

a. Combine by weight 100 parts of part A with 58 parts of part B of adhesive.

b. Mix parts A and B, using tongue depressor, in a wax free non-absorbent paper cup to a uniform consistency leaving no unmixed material around edges of cup.

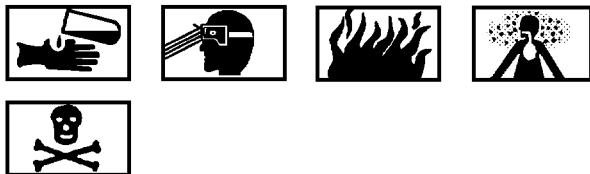
NOTE

Make sure no air bubbles appear in adhesive.

c. Do strain gage installation, this WP.

9. **STRAIN GAGE INSTALLATION.** See figure 2.

a. Cut 1 inch square piece of nylon cloth (scrim cloth) for each strain gage.



Adhesive, EA956

22

NOTE

Reclean bonding surface of keel web per paragraph 4, steps e thru k, if adhesive is not applied within 30 minutes after surface preparation.

b. Apply a thin film of adhesive, approximately 3 to 5 mils thick, to bonding surfaces of keel web. Rub adhesive firmly onto surfaces using plastic spatula.

NOTE

Make sure scrim cloth is wet with adhesive after being positioned.

c. Apply scrim cloth over adhesive.

d. Apply release film A4000 over scrim cloth.

e. Locate clamp assembly (detail 3) into position by installing fasteners into existing gang channel on keel web, detail B.

f. Locate locator (detail 5) against the inner surface of the keel web, and slide forward to butt against flange on keel web, detail A.



Be careful when handling strain gage not to contaminate bonding surface (sensing side of strain gage). Adhesive will not bond correctly to contaminated surface.

g. Apply a thin film of adhesive, approximately 3 to 5 mils thick, to sensing side of strain gage.

h. Position strain gage in bonding fixture with sensing side facing keel web, detail B.

i. Tighten swivel assembly (detail 4) to hold strain gages against keel web, detail B.

j. Tape wire leads to the keel web, detail A.

k. Do null offset test:

(1) Apply 10 VDC across wire leads A - C using DC power supply. See figure 3.



Do not apply excess clamp pressure by over tightening clamp assembly. Damage to strain gage will occur.

NOTE

Do not allow null offset reading to exceed ± 2.5 millivolt (mV) from the pre-installed reading recorded on card.

(2) Apply clamping pressure to strain gage by tightening swivel assembly (detail 4), detail B. Apply only enough clamping pressure to cause null offset reading to change ± 0.5 mV from pre-installed reading recorded on card. Record null offset reading on card.

(3) Monitor null offset reading for 15 minutes. Adjust the clamping pressure as required to maintain the last offset reading recorded on card.

l. Allow adhesive to cure 24 hours at 60°F minimum temperature.

m. After adhesive has cured, relieve clamping pressure on strain gage by loosening swivel assembly (detail 4).

NOTE

A steady increase or decrease in the null output is normal.

n. Slowly reapply clamping pressure to strain gage by tightening swivel assembly (detail 4) to get an identical null offset reading as recorded in step j (2).



Make sure no additional pressure is applied to the strain gage during removal of bonding fixture. Damage to strain gage will occur if excess pressure is applied.

o. Remove bonding fixture from keel web.

(1) Remove clamping pressure on strain gage by loosening swivel assembly (detail 4), detail B.

(2) Remove bolts and washers from gang channel on keel web and remove clamp assembly (detail 3), detail B.



Be careful when removing locator from keel web not to damage strain gage. Make sure no adhesive build-up exists that would cause difficulty in fixture removal.

(3) Carefully remove locator (detail 5) from keel web.

NOTE

Make sure wire leads are bonded to the keel web at least 0.25 inch from strain gage sensor.

p. Bond the strain gage wire leads to keel web using EA956 adhesive. Cover wire leads completely with adhesive. Allow adhesive to cure one hour at 60°F minimum temperature. See figure 1, detail A.



Strain gage bond line must contain no voids. The strain gage will not operate correctly if voids exist.

q. Examine the adhesive squeeze out around strain gage bond line. If any visible voids exist, the strain gage must be removed and a new strain gage installed.

r. Do application of sealing compound, this WP.

10. APPLICATION OF SEALING COMPOUND. See figure 1.

a. Remove all tape from wire leads.

b. Sand all surfaces on keel web structure where strain gage wire leads will be sealed, using abrasive cloth.



Isopropyl Alcohol, TT-I-735

2

c. Clean bonding surface on keel web structure using clean cheesecloth moistened with isopropyl alcohol.

NOTE

Do not allow isopropyl alcohol to evaporate on keel web surface.

d. Immediately wipe surface dry with clean dry cheesecloth.



Sealing Compound, MIL-S-81733, Type 1-2

23

e. Prepare a suitable amount of MIL-S-81733 sealing compound. Do sealant preparation and application procedures (A1-F18AC-SRM-200, WP011 00).

f. Apply fillet seal around all edges of strain gage.

g. Bond strain gage wire leads to inner keel web structure using sealing compound.



Do not apply pressure to strain gage when applying sealing compound. Damage to strain gage will result if excess pressure is applied.

h. Completely imbed strain gage and wire leads in sealing compound. Apply sealing compound over strain gage to a thickness of approximately 0.25 inch, detail A.

i. Allow sealing compound to air cure for 24 hours.

j. Do final aircraft preparation, this WP.

11. **FINAL AIRCRAFT PREPARATION.** See figure 1.

a. Do retermination of strain gages (A1-F18AC-580-300, WP006 00).

b. Install ground wire.

c. Vacuum clean any loose debris from door 33 bay.

d. Apply finish system as required (A1-F18AC-SRM-500, WP012 00).

e. Install door 33 (A1-F18AC-LMM-010).

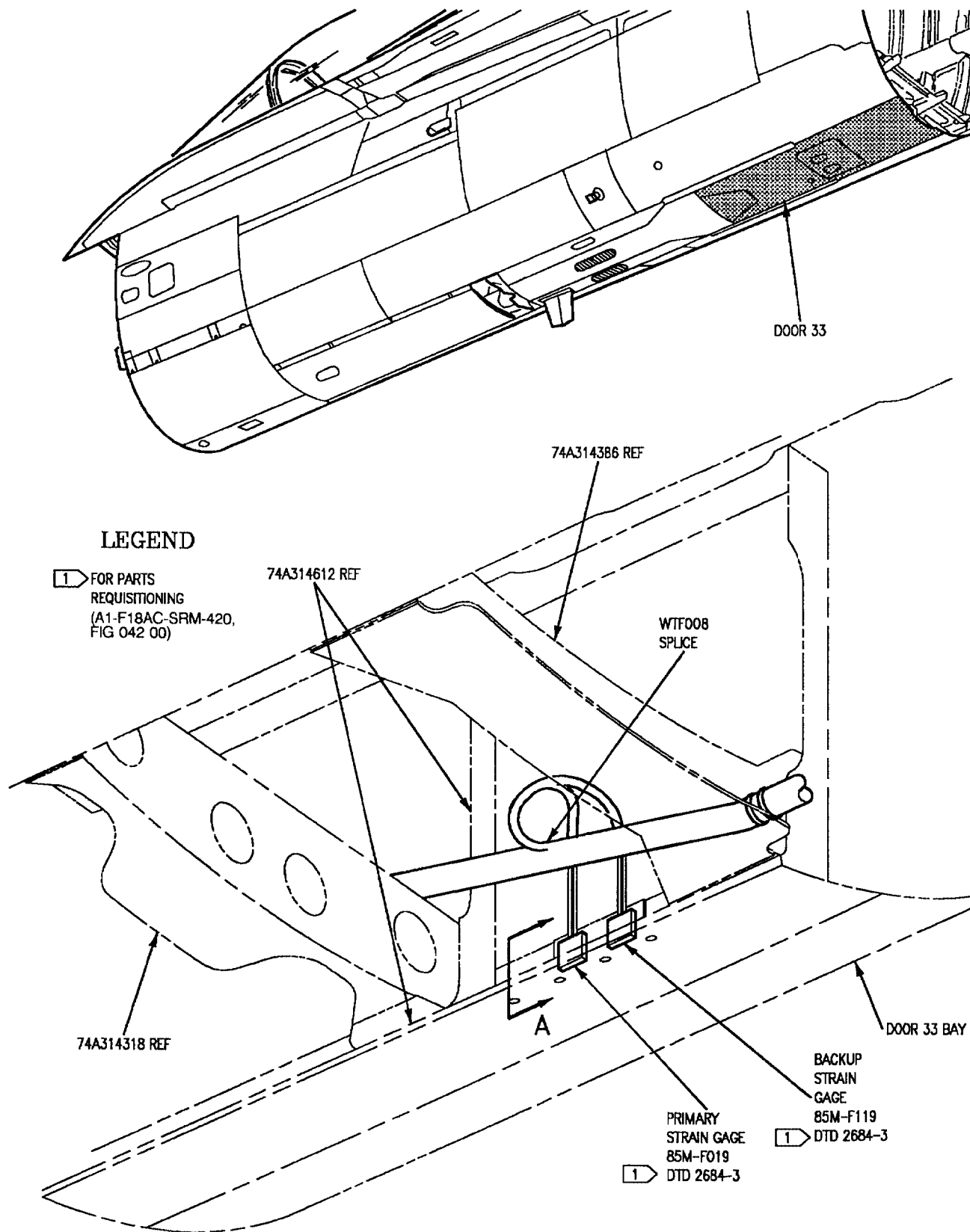


Figure 1. Strain Gages (Sheet 1)

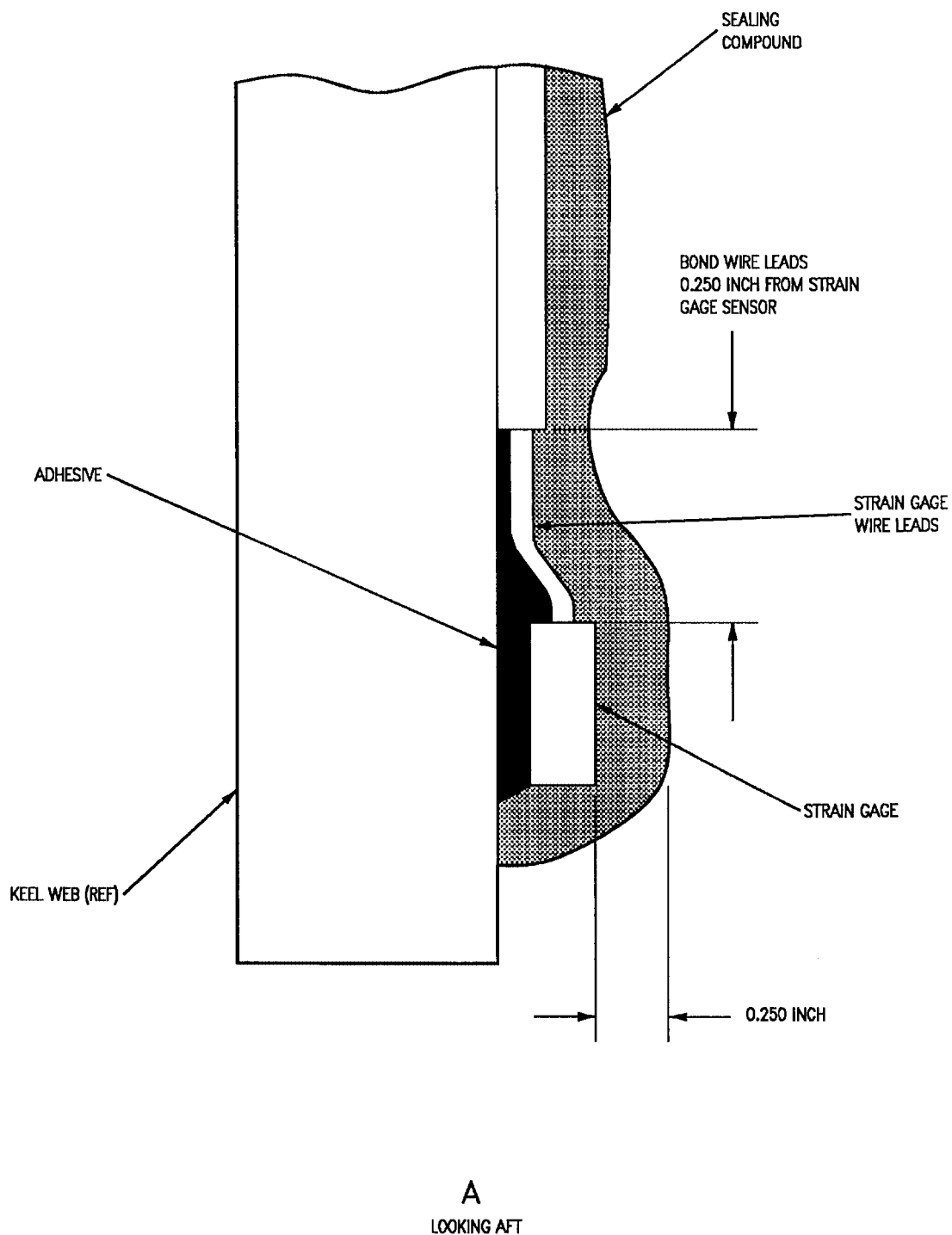


Figure 1. Strain Gages (Sheet 2)

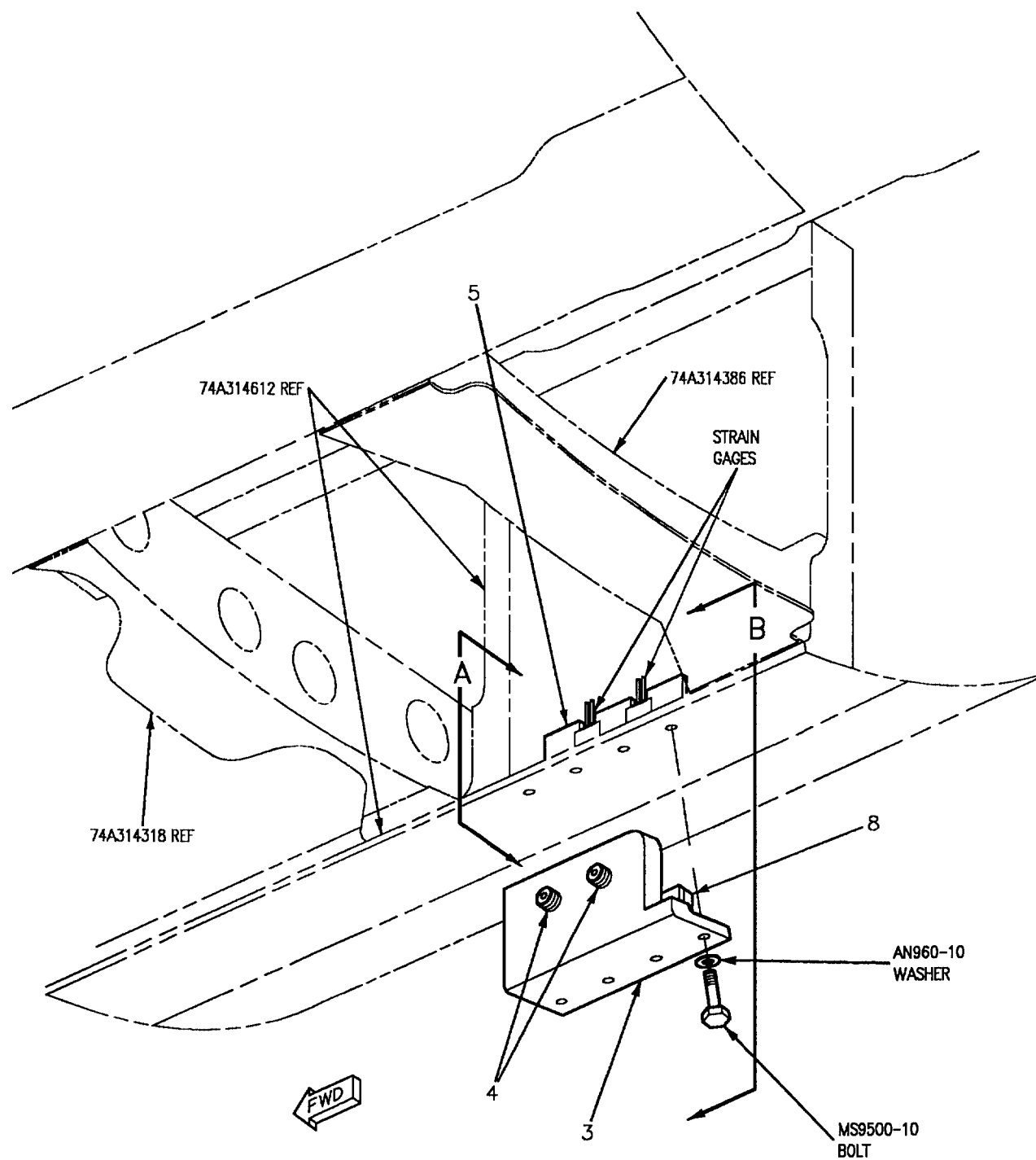


Figure 2. E92110 Strain Gage Bonding Fixture (Sheet 1)

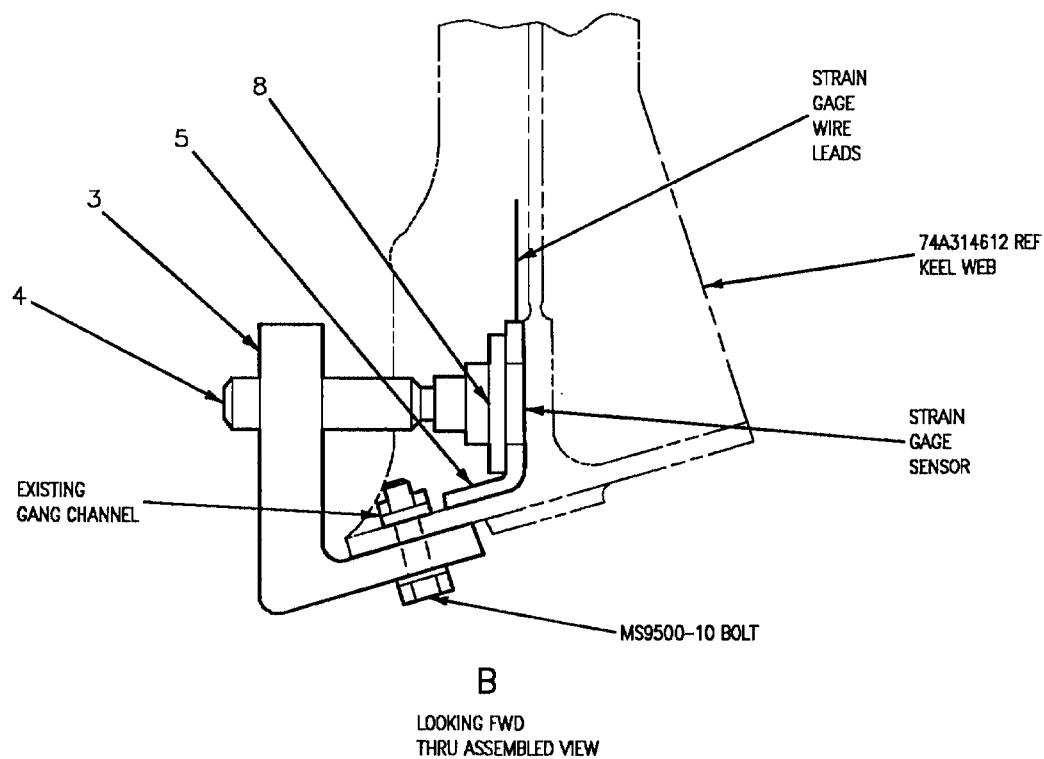
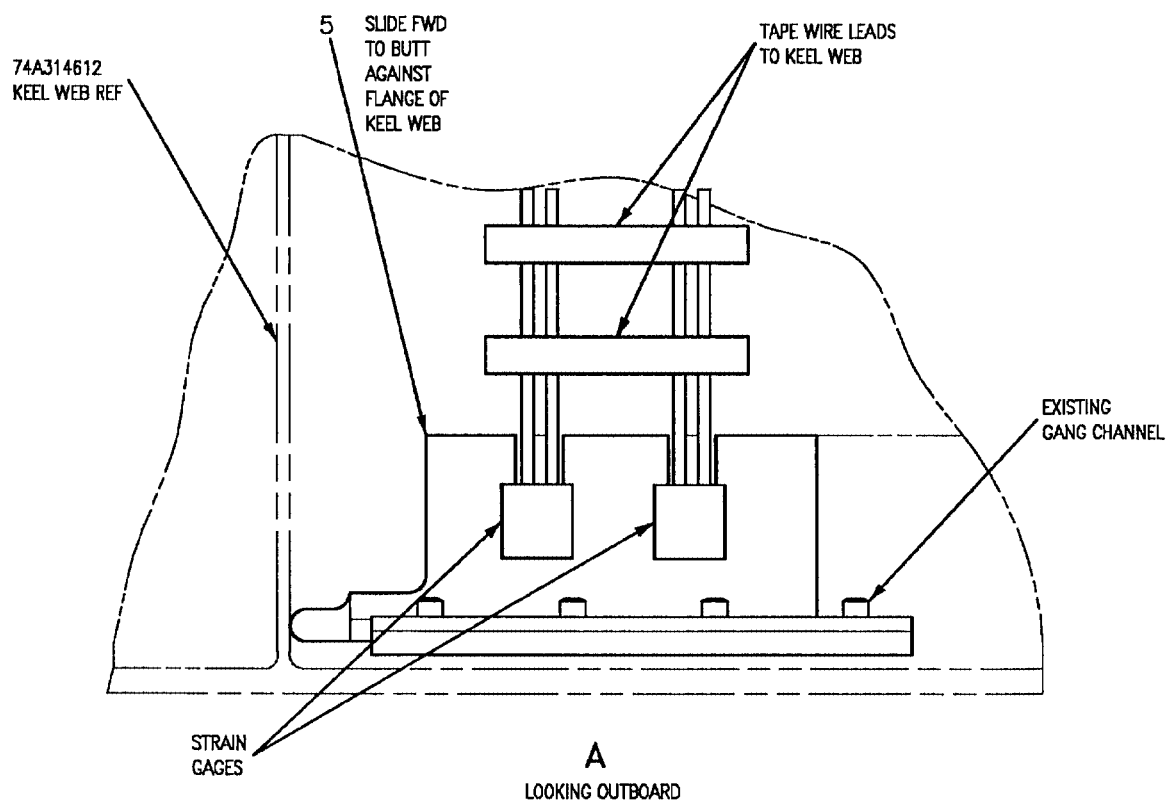


Figure 2. E92110 Strain Gage Bonding Fixture (Sheet 2)

Detail No.	Name	Function
3	Clamp Assembly	Houses components that hold strain gages in place to inboard surface of keel web during bonding.
4	Swivel Assembly	Assembly made up of threaded stud, and two pads. Applies pressure to strain gages while tightening.
5	Locator	Used to hold and align primary and backup strain gages on inboard surface of keel web.
8	Pad	Used with swivel assembly (detail 4) in holding in place locator (detail 5) on inboard surface of keel web.

Figure 2. E92110 Strain Gage Bonding Fixture (Sheet 3)

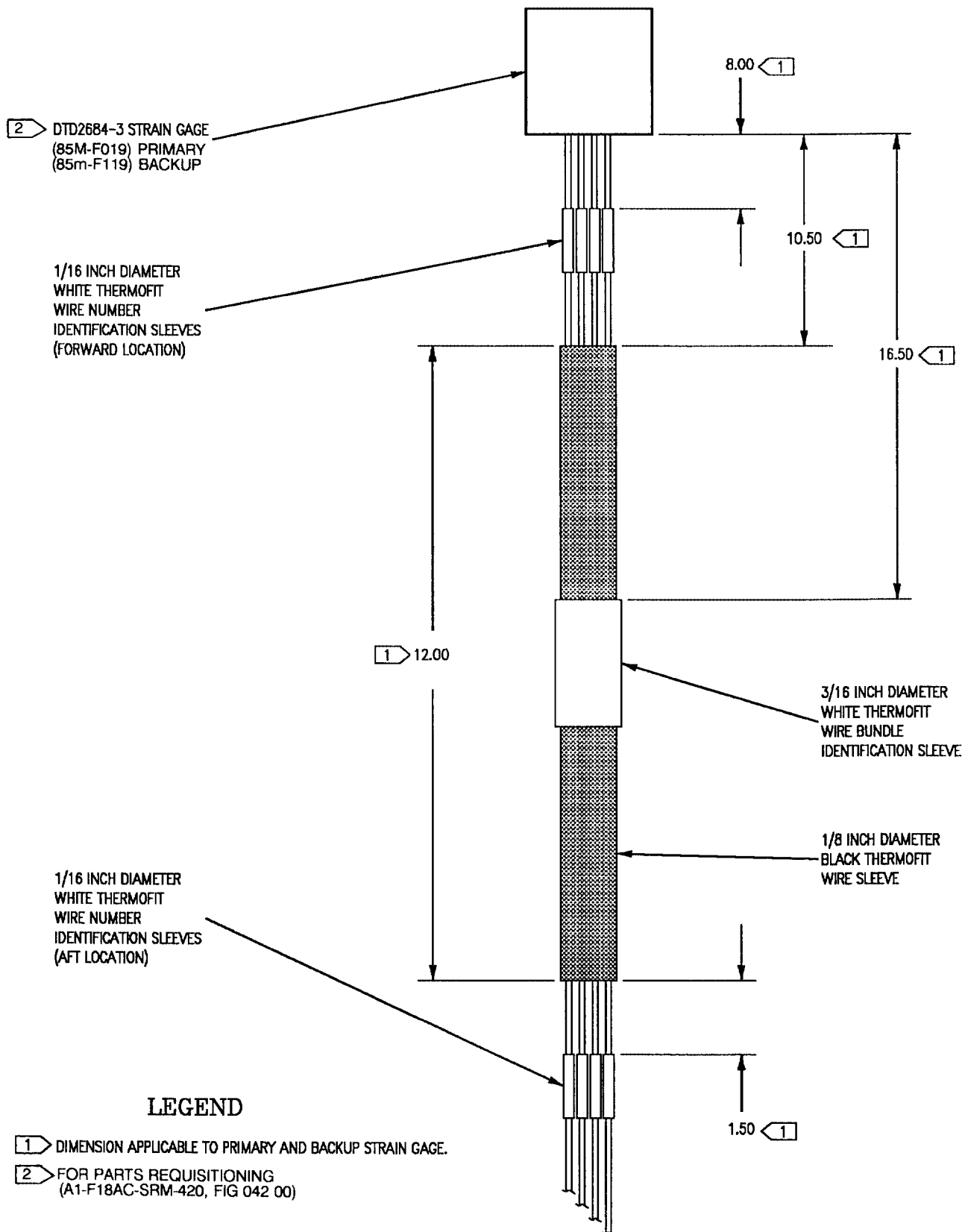


Figure 3. Strain Gage Wire Preparation

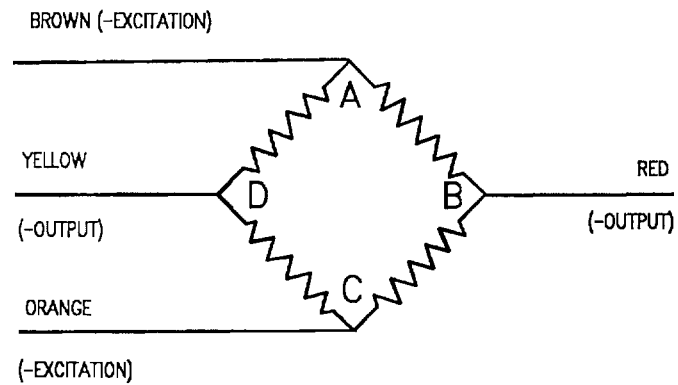


Figure 4. Resistance and Null Testing of New Strain Gages

ORGANIZATIONAL MAINTENANCE

STRUCTURE REPAIR

FORWARD FUSELAGE SHELVES

Reference Material

None

Alphabetical Index

Subject	Page No.
Damage Evaluation	1
Negligible Damage	1
Repairable Damage	1
Repairs	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A18 AFC 28	16 Aug 83	Tactical Electronic Warfare Systems, Receiver-Transmitter RT-1079/ALQ-126 Mounting, Modification of (ECP MDA-F18-0150)	15 Feb 85	-
F/A18 AFC 292	--	U. S. Marine Corps Reserves A+ Avionics Upgrade (ECP MDA-F/A18-00583)	01 Dec 00	-

Support Equipment Required

None

3. **NEGLIGIBLE DAMAGE.** Damage requires depot engineering disposition.

Materials Required

None

4. **REPAIRABLE DAMAGE.** Damage requires depot engineering disposition.

1. **DAMAGE EVALUATION.** See figure 1.

5. **REPAIRS.**

2. The figure identifies types of material used. The data shown can be used to analyze the damage.

6. Repairs require depot engineering disposition.

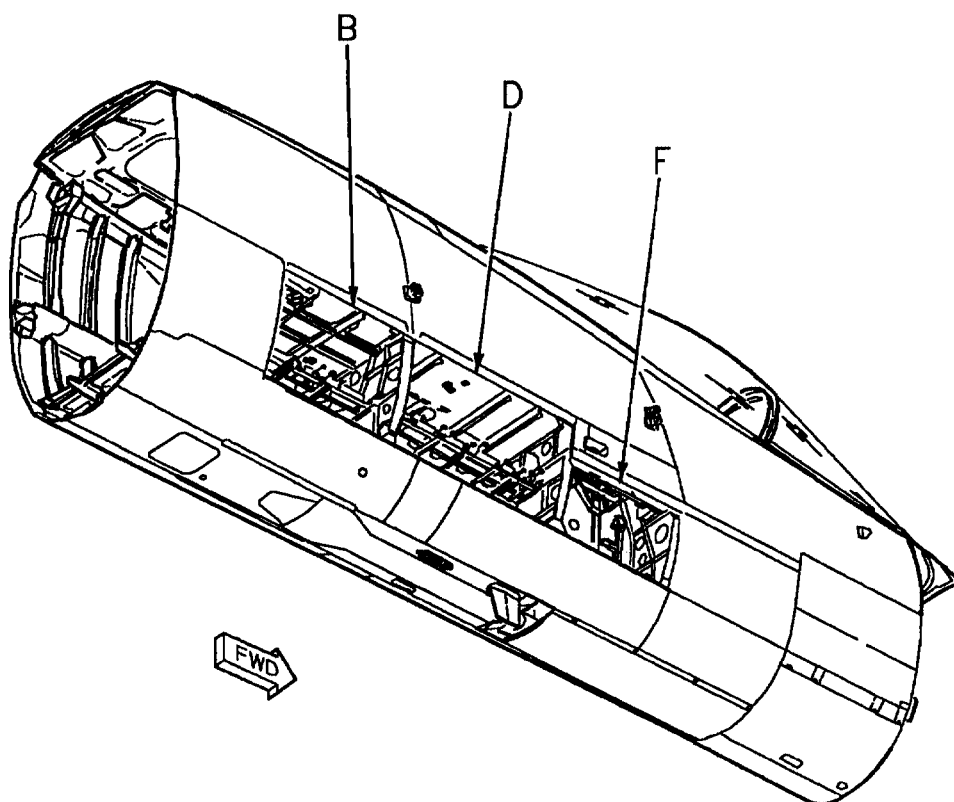
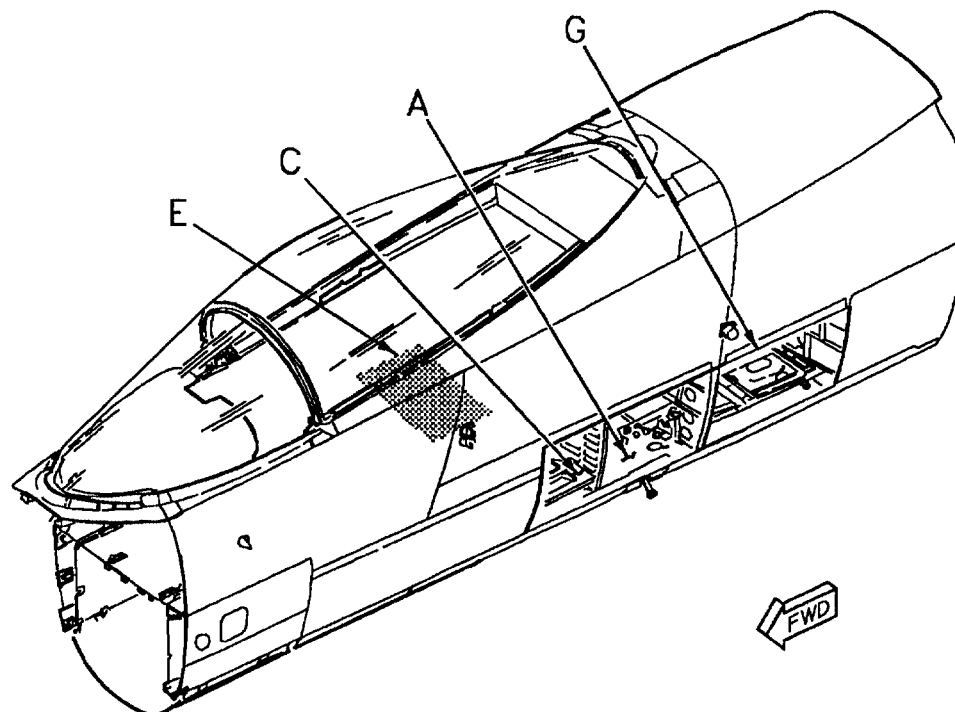


Figure 1. Material Index, Shelves (Sheet 1)

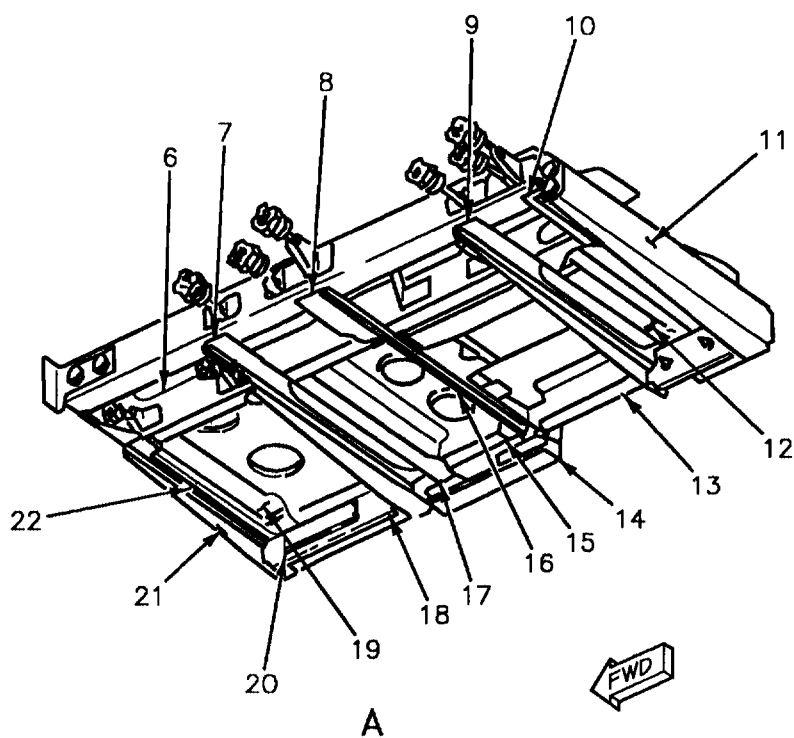
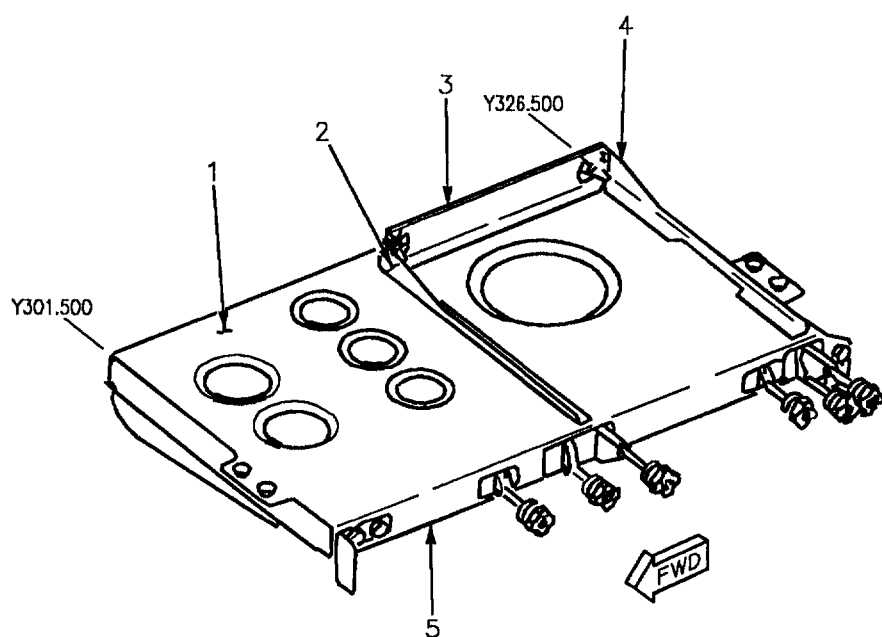


Figure 1. Material Index, Shelves (Sheet 2)

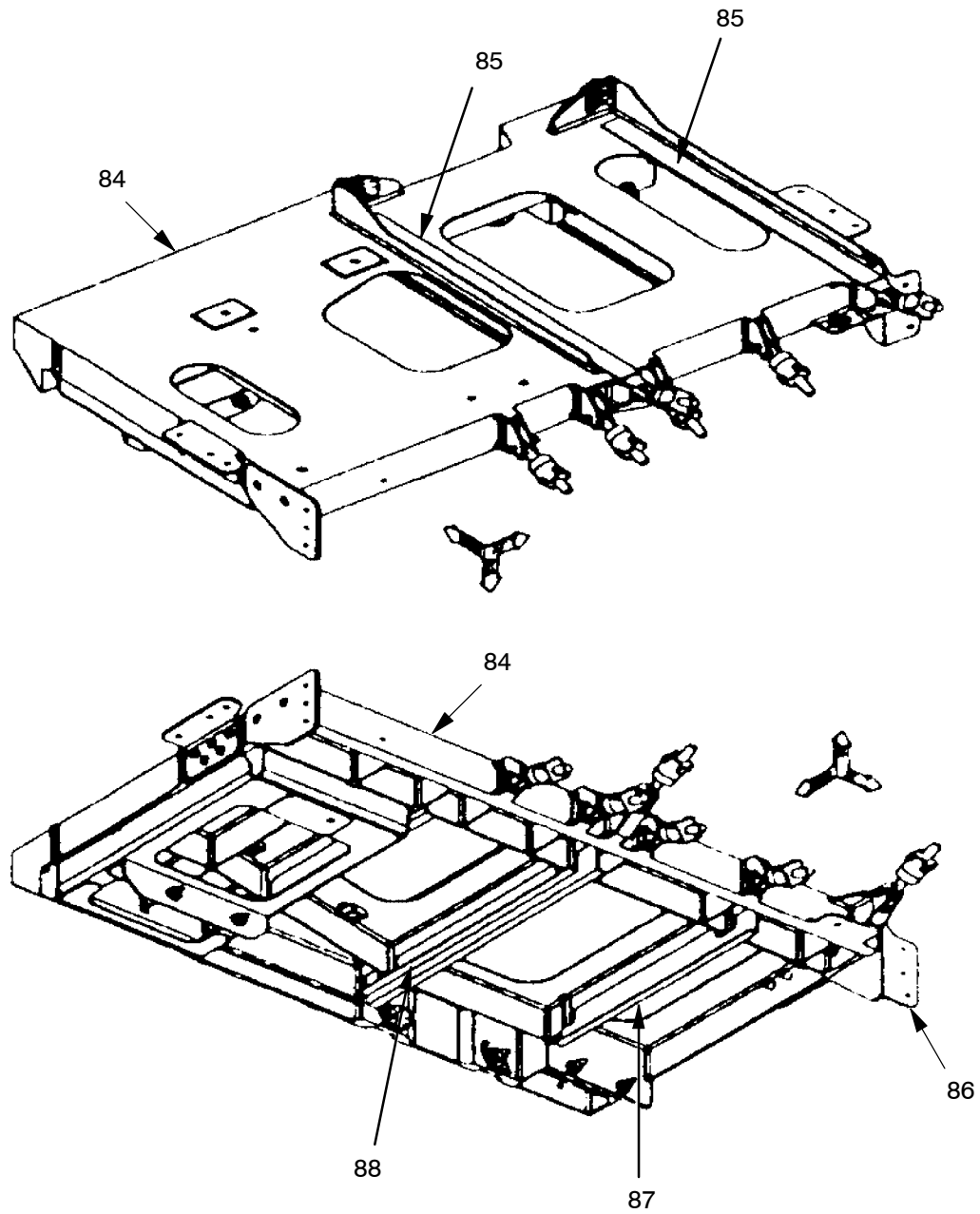


Figure 1. Material Index, Shelves (Sheet 3)

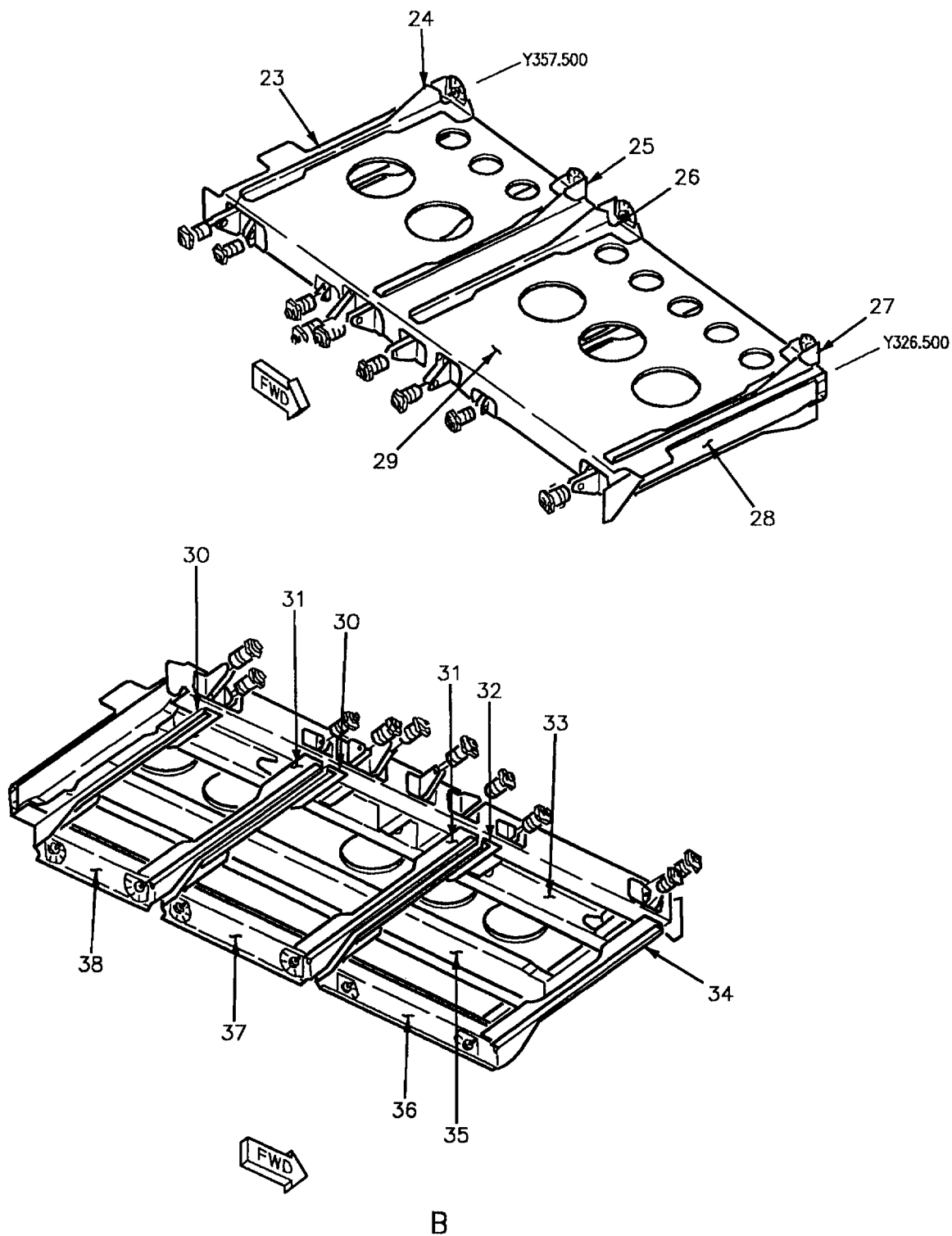


Figure 1. Material Index, Shelves (Sheet 4)

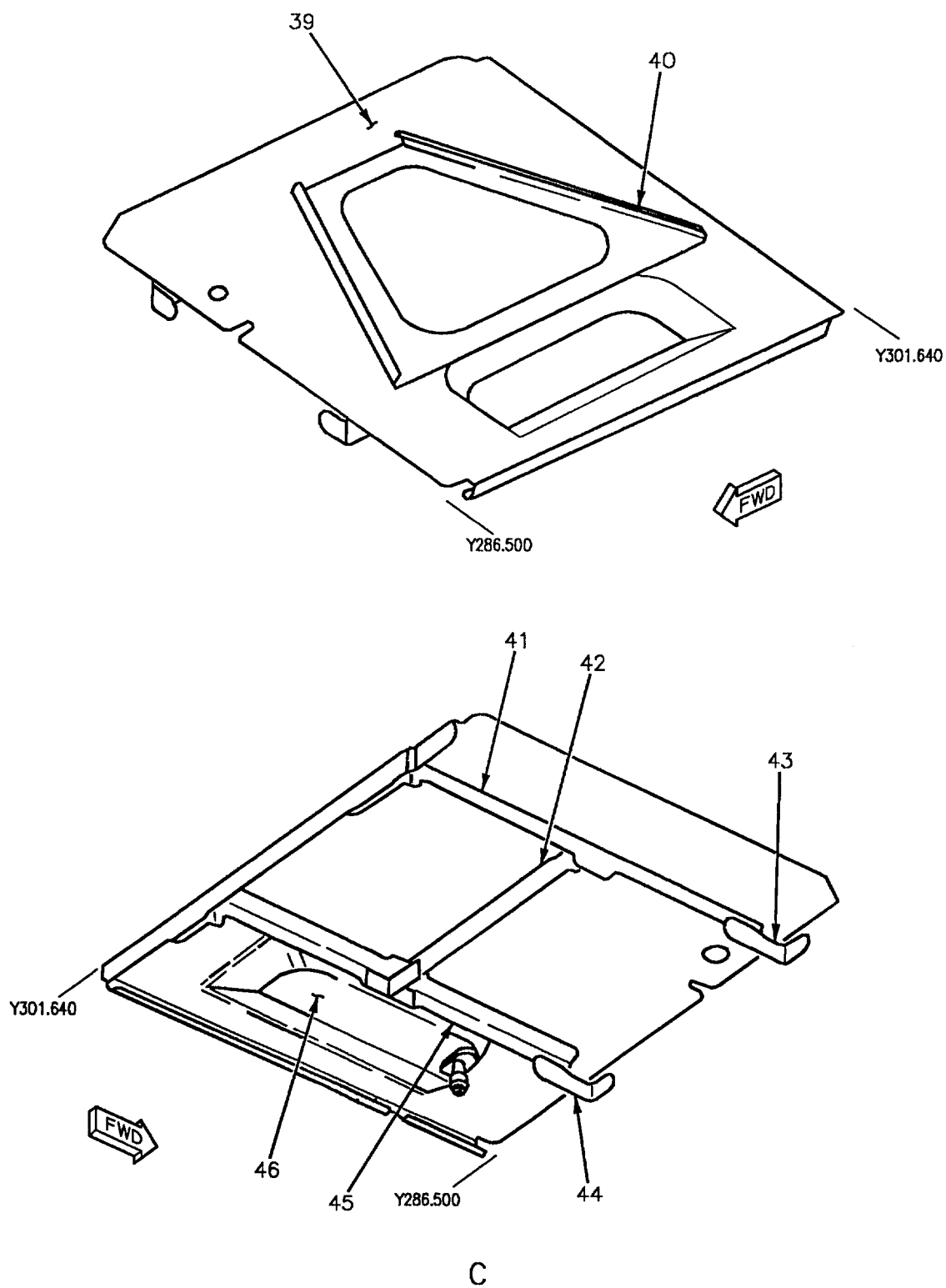


Figure 1. Material Index, Shelves (Sheet 5)

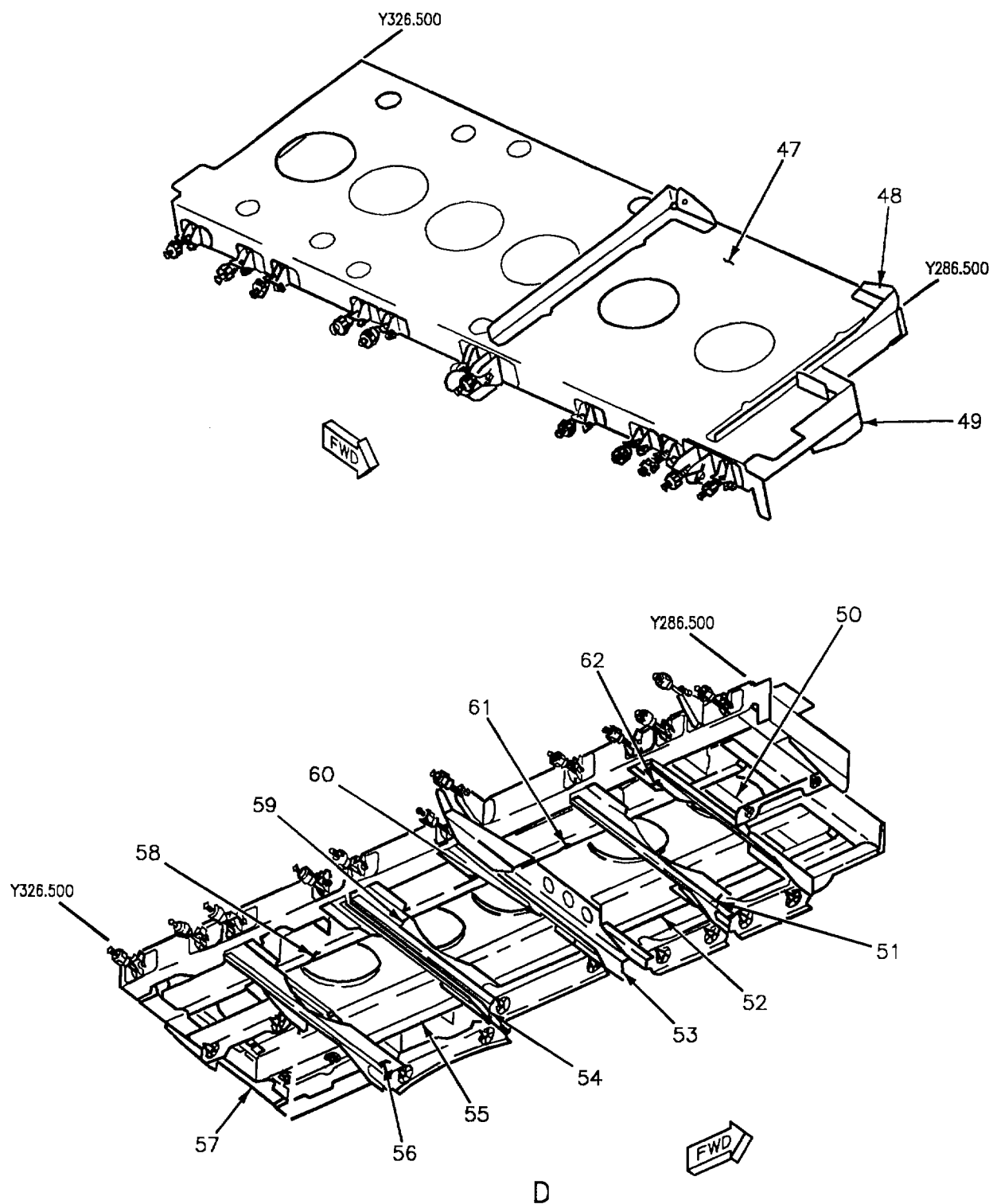


Figure 1. Material Index, Shelves (Sheet 6)

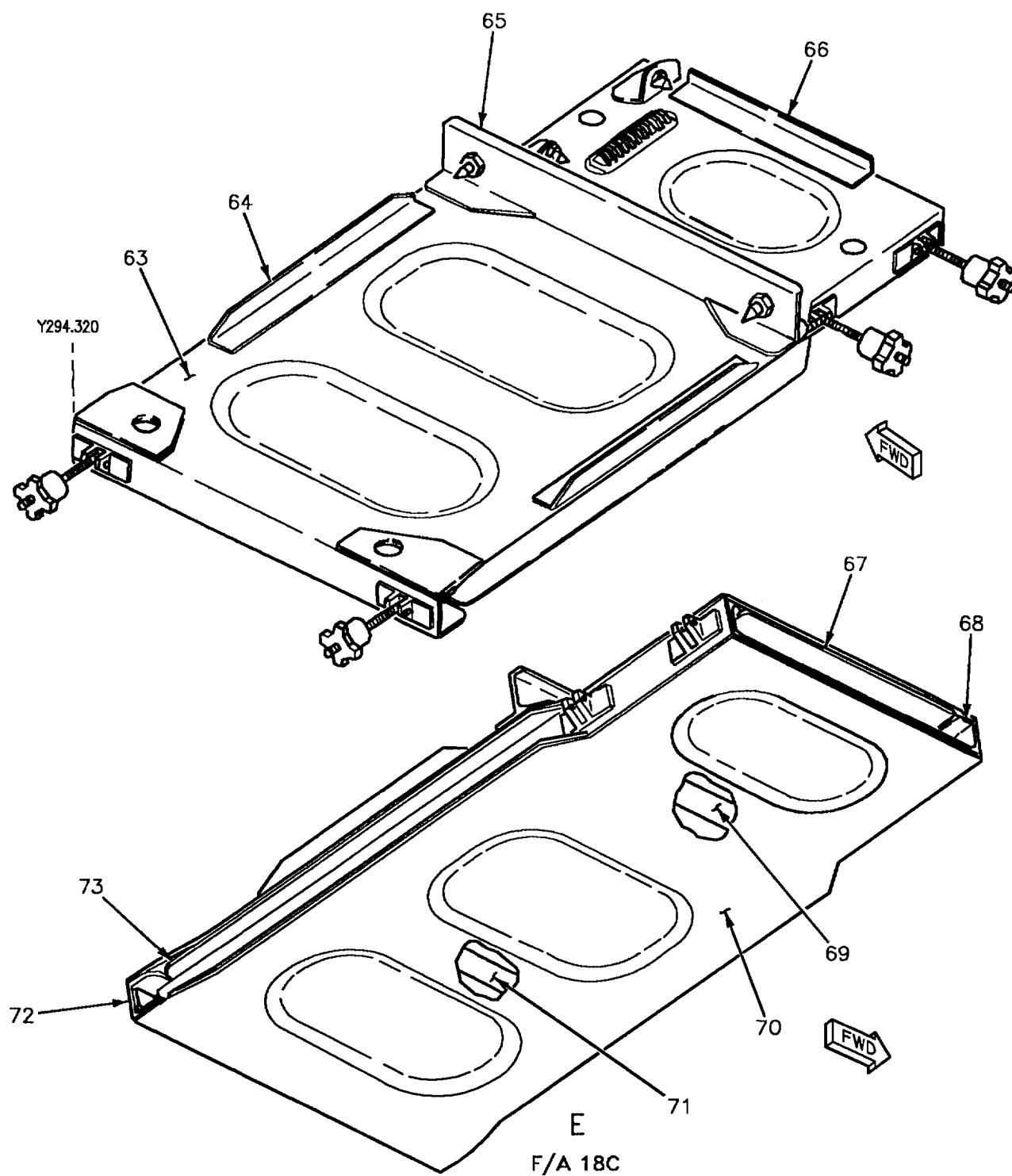


Figure 1. Material Index, Shelves (Sheet 7)

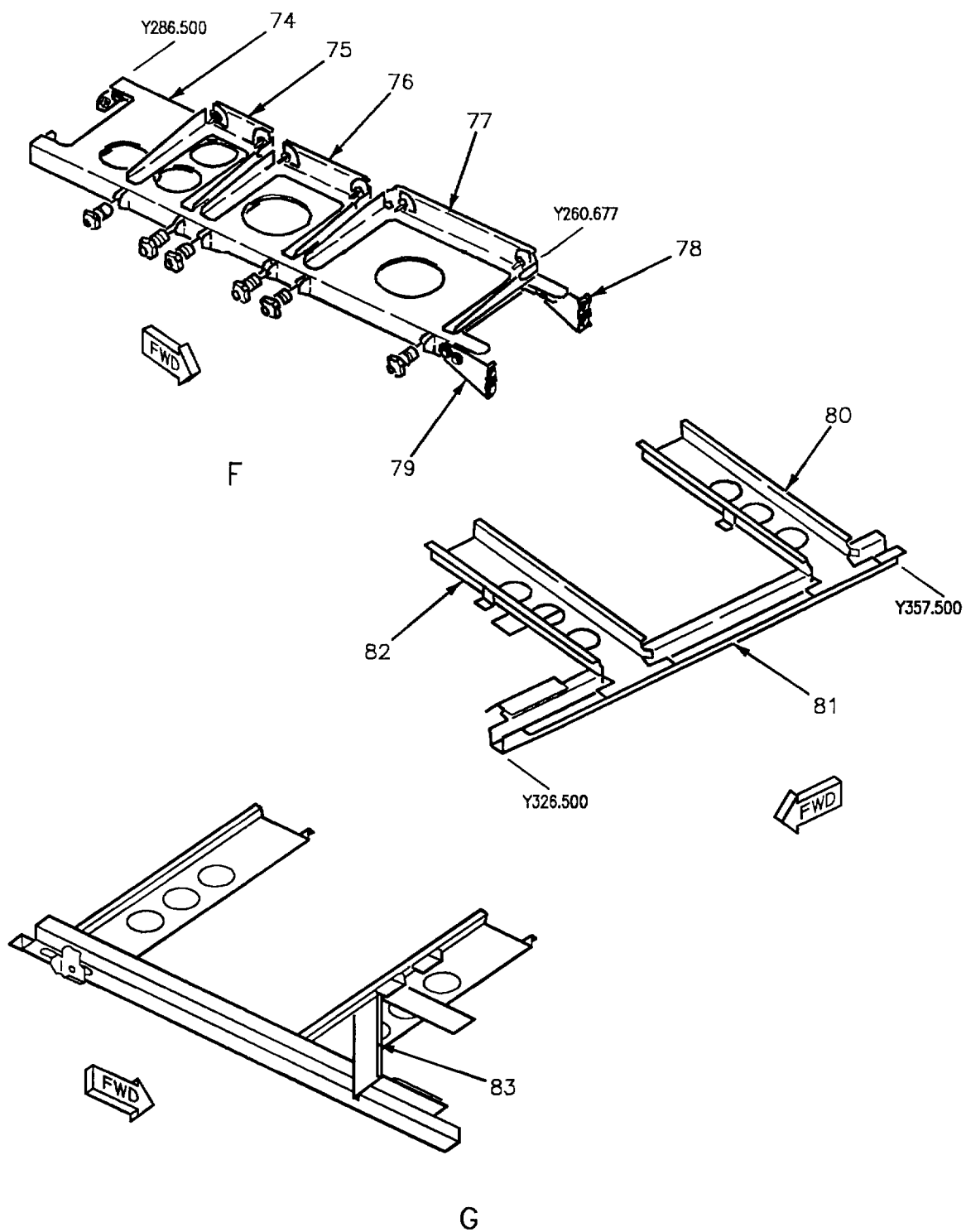


Figure 1. Material Index, Shelves (Sheet 8)




Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Web 74A880621-2151	0.071 Sheet	7075-T6 Alclad
2		Guide 74A880621-2097	0.040 Sheet	7075-T6 Alclad
3		Bracket 74A880621-2139	0.040 Sheet	7075-T6 Alclad
4		Guide 74A880621-2017	0.040 Sheet	7075-T6 Alclad
5		Channel 74A880621-2093	0.063 Sheet	7075-T6 Alclad
6		Channel 74A880621-2083	0.063 Sheet	7075-T6 Alclad
7		Guide 74A880621-2063	1MA121D05-10005 Extr	7075-T73511 Al Aly
8		Guide 74A880621-2103	1MA121D05-10005 Extr	7075-T73511 Al Aly
9		Guide 74A880621-2101	1MA121D05-10005 Extr	7075-T73511 Al Aly
10		Guide 74A880621-2062 74A880621-2153	1MA121D05-10005 Extr	7075-T73511 Al Aly
11		Channel 74A880621-2005 74A880621-2163	0.063 Sheet	7075-T6 Alclad
12		Channel 74A880621-2087	0.063 Sheet	7075-T6 Alclad
13		Channel 74A880621-2095	0.063 Sheet	7075-T6 Alclad
14		Stop 74A880650-2001 74A880650-2005	0.50 Plate	7075-T7351 Al Aly
15		Bracket 74A880621-2115	0.050 Sheet	7075-T6 Alclad
16		Channel 74A880621-2091	0.063 Sheet	7075-T6 Alclad
17		Channel 74A880621-2089	0.063 Sheet	7075-T6 Alclad

Figure 1. Material Index, Shelves (Sheet 9)



Idx No.	Eft	Nomenclature and Part No.	Description	Material
18		Guide 74A880621-2099 74A880621-2159	1MA121D05-10005 Extr	7075-T73511 Al Aly
19		Bracket 74A880621-2137	0.063 Sheet	7075-T6 Alclad
20		Wedge 74A880621-2057	0.250 Plate	6061-T651 Al Aly
21		Guide 74A880621-2059 74A880621-2157	1MA121D05-10005 Extr	7075-T73511 Al Aly
22		Channel 74A880621-2085	0.063 Sheet	7075-T6 Alclad
23		Channel 74A880628-2057	0.063 Sheet	7075-T6 Alclad
24		Guide 74A880628-2013	0.063 Sheet	7075-T6 Alclad
25		Guide 74A880628-2065	0.063 Sheet	7075-T6 Alclad
26		Guide 74A880628-2015	0.063 Sheet	7075-T6 Alclad
27		Guide 74A880628-2016	0.063 Sheet	7075-T6 Alclad
28		Channel 74A880628-2003	0.063 Sheet	7075-T6 Alclad
29		Web 74A880628-2055	0.071 Sheet	7075-T6 Alclad
30		Guide 74A880628-2035	1MA121D05-10005 Extr	7075-T73511 Al Aly
31		Guide 74A880628-2036	1MA121D05-10005 Extr	7075-T7351 Al Aly
32		Guide 74A880628-2039	1MA121D05-10005 Extr	7075-T73511 Al Aly
33		Channel 74A880628-2059	0.063 Sheet	7075-T6 Alclad
34		Guide 74A880628-2040	1MA121D05-10005 Extr	7075-T7351 Al Aly

Figure 1. Material Index, Shelves (Sheet 10)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
35		Channel 74A880628-2060	0.063 Sheet	7075-T6 Alclad
36		Bracket 74A880628-2063	0.050 Sheet	7075-T6 Alclad
37		Bracket 74A880628-2067	0.050 Sheet	7075-T6 Alclad
38		Bracket 74A880628-2047	0.050 Sheet	7075-T6 Alclad
39	<div>3</div> <div>5</div> <div>6</div> <div>7</div> <div>8</div> <div>17</div> <div>18</div>	Closure 74A850610-2029 74A850610-9003 74A850610-9007 74A850610-2031 74A850610-2033 74A850610-2035 74A850610-2037	0.040 Sheet	6061-T6 Al Aly
40		Bracket 68A311155-2095	0.063 Sheet	302 CRES
41		Angle 74A850610-2021	0.040 Sheet	7075-T6 Alclad
42		Angle 74A850610-2017	0.040 Sheet	7075-T6 Alclad
43		Angle 74A850610-2009	0.040 Sheet	7075-T6 Alclad
44		Angle 74A850610-2010	0.040 Sheet	7075-T6 Alclad
45		Angle 74A850610-2015	0.040 Sheet	7075-T6 Alclad
46		Plate 74A850614-2001	0.100 Plate	6061-T6 Al Aly
47	<div>9</div> <div>10</div>	Web 74A880611-2181 74A880611-2289	0.063 Sheet	7075-T6 Alclad
48		Guide 74A880611-2187	0.063 Sheet	7075-T6 Alclad
49	<div>9</div> <div>10</div>	Channel 74A880611-2100 74A880611-2272	1MA100D05-10071 Extr	7075-T73511 Al Aly

Figure 1. Material Index, Shelves (Sheet 11)





Idx No.	Eft	Nomenclature and Part No.	Description	Material
50		Bracket 74A880611-2151	0.063 Sheet	7075-T6 Alclad
51		Channel 74A880611-2057	1MA121D05-10005 Extr	7075-T73511 Al Aly
52		Channel 74A880611-2095	0.050 Sheet	7075-T6 Alclad
53		Channel 74A880611-2078	1MA121D05-10005 Extr	7075-T73511 Al Aly
54		Channel 74A880611-2028	1MA121D05-10005 Extr	7075-T73511 Al Aly
55		Channel 74A880611-2157 74A880611-2301	0.050 Sheet	7075-T6 Alclad
56		Channel 74A880611-2027	1MA121D05-10005 Extr	7075-T73511 Al Aly
57		Former 74A880611-2149 74A880611-2293	0.050 Sheet	7075-T6 Alclad
58		Channel 74A880611-2155 74A880611-2287	0.050 Sheet	7075-T6 Alclad
59		Channel 74A880611-2077	1MA121D05-10005 Extr	7075-T73511 Al Aly
60		Former 74A880611-2193	0.063 Sheet	7075-T6 Alclad
61		Channel 74A880611-2093 74A880611-2283	0.050 Sheet	7075-T6 Alclad
62		Channel 74A880611-2058	1MA121D05-10005 Extr	7075-T73511 Al Aly
63		Web 74A800801-2069	0.032 Sheet	7075-T6 Alclad
64		Guide 74A800801-2117	1MA100D06-10265 Extr	7075-T76511 Al Aly
65		Support 74A800801-2073	1MA140D06-10010 Extr	7075-T76511 Al Aly

Figure 1. Material Index, Shelves (Sheet 12)




Idx No.	Eft	Nomenclature and Part No.	Description	Material
66		Guide 74A800801-2089	1MA100D06-10024 Extr	7075-T76511 Al Aly
67		Channel 74A800801-2084	1MA120D06-10052 Extr	7075-T76511 Al Aly
68		Beam 74A800801-2079	1MA140D06-10008 Extr	7075-T76511 Al Aly
69		Channel 74A800801-2083	1MA120D06-10052 Extr	7075-T76511 Al Aly
70		Web 74A800801-2077	0.032 Sheet	7075-T6 Alclad
71		Channel 74A800801-2081	1MA120D06-10042 Extr	7075-T76511 Al Aly
72		Channel 74A800801-2091	1MA120D06-10053 Extr	7075-T76511 Al Aly
73		Beam 74A800801-2075	1MA140D06-10008 Extr	7075-T76511 Al Aly
74		Shelf 74A880688-2003 74A880688-2007 74A880688-2009	1.00 Plate	7075-T7351 Al Aly
75		Tray 74A880689-2005	0.040 Sheet	7075-T6 Alclad
76		Tray 74A880689-2003	0.040 Sheet	7075-T6 Alclad
77		Tray 74A880689-2001	0.040 Sheet	7075-T6 Alclad
78		Bracket 74A880689-2007	0.063 Sheet	7075-T6 Alclad
79		Bracket 74A880689-2017	0.063 Sheet	7075-T6 Alclad
80		Support 74A880606-9009 74A880606-2057	0.040 Sheet	7075-T6 Alclad
81		Support 74A880606-2043 74A880606-2051 74A880606-9013 74A880606-2071	0.040 Sheet	7075-T6 Alclad

Figure 1. Material Index, Shelves (Sheet 13)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
82	<div>3</div> <div>4</div>	Support 74A880606-9011 74A880606-2063	0.040 Sheet	7075-T6 Alclad
83	<div>21</div> <div>22</div>	Bracket 74A880606-2011 74A880606-2081	0.050 Sheet	7075-T6 Alclad
84	<div>23</div>	Shelf 74R880638-1001	Casting	A357-T6 Al Aly
85	<div>23</div>	Rub Strip 74A880788-2013	0.063 Sheet	Plastic Laminate
86	<div>23</div>	Support 74R880639-2005	1MA100D05-10391	7075-T73511 Al Aly
87	<div>23</div>	Guide 74A880848-2035	1MA100D05-10286	7075-T73511 Al Aly
88	<div>23</div>	Guide 74A880848-2033	1MA100D05-10286	7075-T73511 Al Aly
<p style="text-align: center;">LEGEND</p> <div>1</div> 161353 THRU 161361. <div>2</div> 161362 AND UP. <div>3</div> 161353 THRU 161528. <div>4</div> 161702 AND UP. <div>5</div> 161702 THRU 161715. <div>6</div> 161716 THRU 161720. <div>7</div> F/A-18A 161721 THRU 162909 AND F/A-18B 161723 THRU 161733. <div>8</div> F/A-18B 161740 THRU 162885. <div>9</div> 161353 THRU 161924. <div>10</div> 161925 AND UP. <div>11</div> 161353 THRU 161519. <div>12</div> 161520 THRU 161528. <div>13</div> 161353 THRU 161367 BEFORE F18 AFC 28. <div>14</div> 161519 THRU 161528 BEFORE F18 AFC 28. <div>15</div> 161702 THRU 161761 BEFORE F18 AFC 28. <div>16</div> 161925 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 28. <div>17</div> F/A-18A 163092 AND UP. <div>18</div> F/A-18B 163104 AND UP. <div>19</div> 161353 THRU 162896. <div>20</div> 162897 AND UP. <div>21</div> 161353 THRU 162852. <div>22</div> 162853 AND UP. <div>23</div> F/A-18A 162394 THRU 163175 AFTER F18 AFC 292 .				

Figure 1. Material Index, Shelves (Sheet 14)

ORGANIZATIONAL MAINTENANCE

STRUCTURE REPAIR

FORWARD FUSELAGE WEB

Reference Material

Aircraft Corrosion Control	A1-F18AC-SRM-500
Landing Gear, Arresting Hook, and Launch Bar, Finish System and Markings	WP042 00
Structure Repair, General Information	A1-F18AC-SRM-200
Adhesive, Cement, and Sealant; Preparation and Application	WP011 00
Line Maintenance Procedures	A1-F18AC-LMM-000

Alphabetical Index

Subject	Page No.
Damage Evaluation	1
Negligible Damage	1
Repairable Damage	1
Repairs	1
Replacement	1
Screen, 74A314233	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 27	-	Improvement of Leading Edge Flap Design (ECP MDA-F/A-18-00044)	1 Jul 86	-
F18 AFC 48	-	Alternating Current Bus Isolation (ECP MDA-F/A-18-00121)	15 Nov 86	-

1. **DAMAGE EVALUATION.** See figure 1.

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The figure identifies types of material used. The data shown can be used to analyze the damage.

3. **NEGLECTIBLE DAMAGE.** Damage requires depot engineering disposition.

4. **REPAIRABLE DAMAGE.** Damage requires depot engineering disposition.

5. **REPAIRS.**

6. Repairs require a depot engineering disposition.

7. **REPLACEMENT.**

8. **SCREEN, 74A314233.** When damaged, screen must be replaced. See figure 1.

Support Equipment Required

None

Materials Required

**Specification or
Part Number**

Nomenclature

304 Wire cloth	0.125 Grid x 0.025 dia. wire stainless steel screen
MS20470AD5	Rivets (as required)
MIL-S-83430, Class B-4	Sealing Compound



Be careful not to enlarge holes when drilling out rivets. Damage to structure can occur.

a. Remove rivets attaching stiffener and screen to plate.

b. Remove stiffener and damaged screen.

c. Cut to size new screen from 304 wire cloth.

d. Prepare surfaces for electrical bonding (A1-F18AC-LMM-000).

e. Position new screen in place.



Sealing Compound, MIL-S-83430, Class B-4

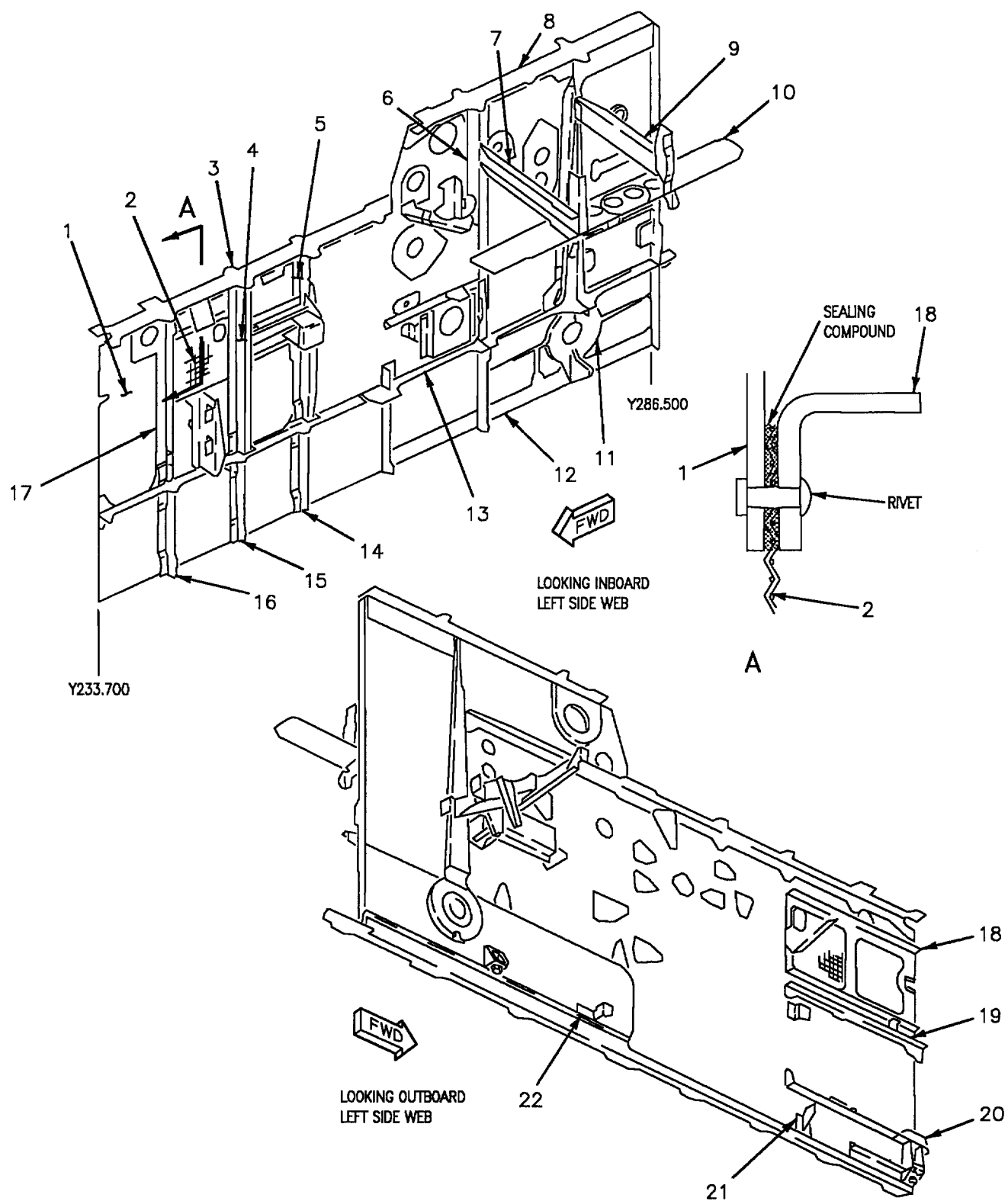
24

f. Fay surface seal with sealing compound (A1-F18AC-SRM-200, WP011 00).

g. Place stiffener on screen.

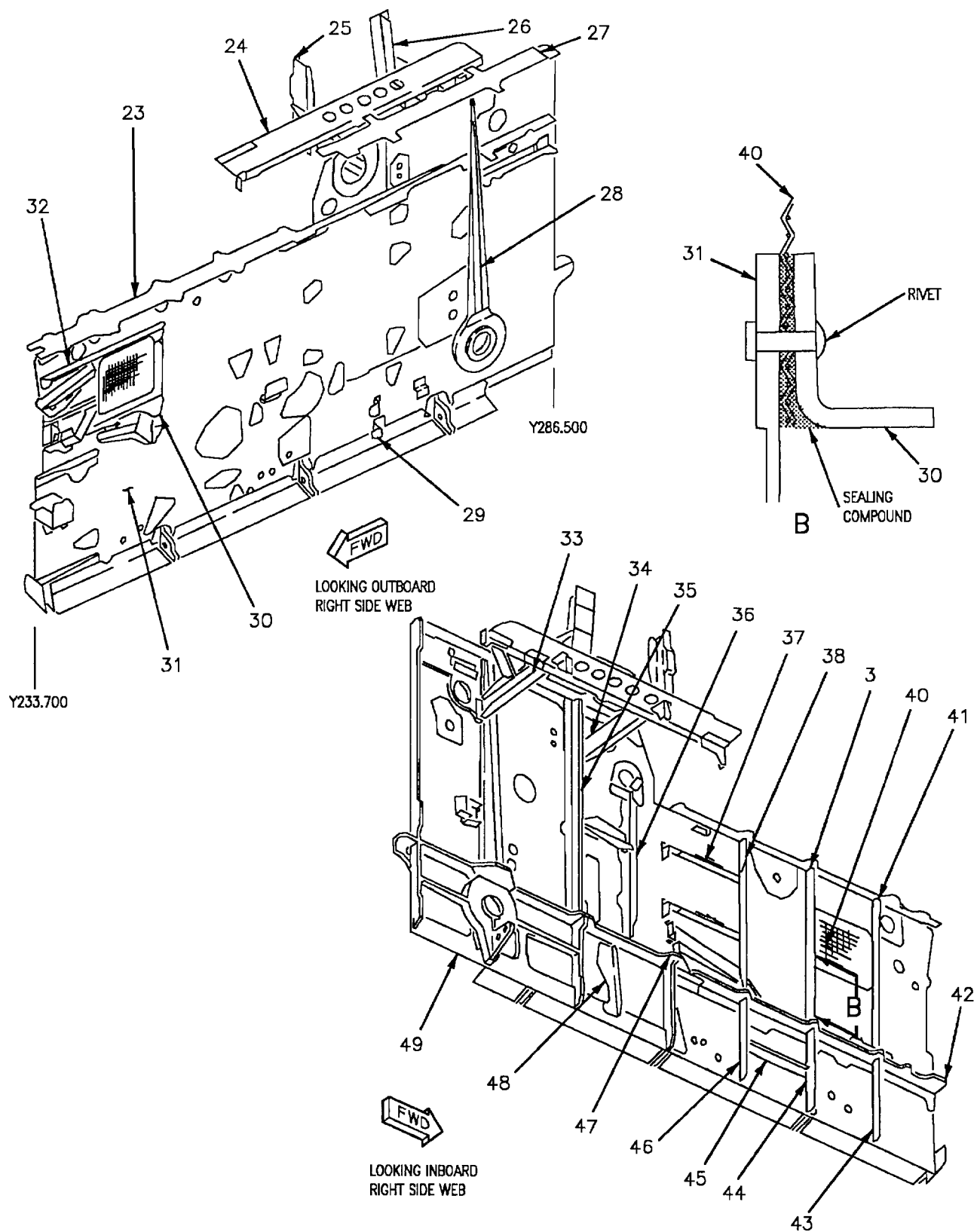
h. Install rivets wet with sealing compound (A1-F18AC-SRM-200, WP011 00). Rivet length determined on installation.

i. Refinish area (A1-F18AC-SRM-500, WP042 00).



18AC-SRM-221-(101-1)01-SCAN

Figure 1. Web Material Index (Sheet 1)



18AC-SRM-221-(101-2)01-SCAN

Figure 1. Web Material Index (Sheet 2)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
1	<div>5</div> <div>7</div> <div>8</div> <div>2</div> <div>1</div>	Plate 74A314348-2053 74A314348-9053 74A314348-2059 74A314348-9051 74A314348-9059	<div>9</div> 0.056 Sheet	7075-T6 Alclad
2	<div>15</div> <div>16</div>	Screen 74A314233-2107 74A314233-2581	8 Mesh 0.025 Dia. 6.90 x 7.20	304 Cres
3		Longeron 74A314229-2007	1MA160D06-10399 Extr	7075-T76511 Al Aly
4	<div>3</div> <div>4</div>	Bracket 74A314238-2017 74A314238-2019	0.050 Sheet	7075-T6 Alclad
5		Bracket 74A314239-2010	0.050 Sheet	7075-T6 Alclad
6		Support 74A314240-2017	1MA163D06-10029 Extr	7075-T76511 Al Aly
7		Beam 74A314416-2073	1MA120D05-10285 Extr	7075-T73511 Al Aly
8		Support 74A314394-2010	1MA160D05-10408 Extr	7075-T73511 Al Aly
9	<div>3</div> <div>11</div> <div>12</div>	Beam 74A314416-2077 74A314416-2097 74A314416-2103	1MA120D05-10182 Extr	7075-T73511 Al Aly
10	<div>3</div> <div>4</div>	Web 74A314416-2059 74A314416-2069	0.040 Sheet	7075-T6 Alclad
11	<div>13</div> <div>14</div> <div>6</div>	Support 74A314235-2011 74A314235-2015 74A314235-2017	Machining	7075-T7352 Al Aly
12		Longeron 74A314619-2011	1MA164D01-10024 Extr	7075-T76 Al Aly
13		Support 74A314236-2006	1MA160D05-10394 Extr	7075-T73511 Al Aly
14		Bracket 74A314239-2003	0.050 Sheet	7075-T6 Alclad

Figure 1. Web Material Index (Sheet 3)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
15		Bracket 74A314238-2004	0.050 Sheet	7075-T6 Alclad
16		Bracket 74A314237-2008	0.050 Sheet	7075-T6 Alclad
17	<div>25</div> <div>26</div> <div>24</div>	Bracket 74A314237-2011 74A314237-2021 74A314237-2027	0.050 Sheet	7075-T6 Alclad
18	<div>3</div> <div>4</div>	Stiffener 74A314233-2435 74A314233-2217	0.050 Sheet	7075-T6 Alclad
19		Stiffener 74A314233-2303	0.050 Sheet	7075-T6 Alclad
20		Support 74A314254-2009	2.75 Plate	7075-T7351 Al Aly
21		Leveling Lug 74A314233-2127	1MA160D05-10232 Extr	7075-T73511 Al Aly
22		Leveling Lug 74A314233-2491	0.090 Sheet	7075-T76 Alclad
23		Longeron 74A314229-2008	1MA160D06-10399 Extr	7075-76511 Al Aly
24		Web 74A314416-2076	0.040 Sheet	7075-T6 Alclad
25		Former 74A314416-2032	0.050 Sheet	7075-T6 Alclad
26		Tee 74A314416-2089	1MA160D01-10178 Extr	7075-T76 Al Aly
27		Support 74A314394-2009	1MA160D05-10408 Extr	7075-T73511 Al Aly
28	<div>13</div> <div>14</div> <div>6</div>	Support 74A314235-2014 74A314235-2016 74A314235-2020	Machining	7075-T7352 Al Aly
29		Leveling Lug 74A314233-2493	0.090 Sheet	7075-T76 Alclad
30		Stiffener 74A314233-2455	0.050 Sheet	7075-T6 Alclad

Figure 1. Web Material Index (Sheet 4)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
31	<div>17</div> <div>18</div> <div>11</div> <div>12</div>	Plate 74A314348-2049 74A314348-2055 74A314348-2051 74A314348-2057	0.056 Sheet	7076-T6 Alclad
32	<div>3</div> <div>4</div>	Stiffener 74A314233-2451 74A314233-2323	0.050 Sheet	7075-T6 Alclad
33	<div>5</div> <div>6</div>	Beam 74A314416-2078 74A314416-2108	1MA120D05-10182 Extr	7075-T73511 Al Aly
34		Beam 74A314416-2074	1MA120D05-10285 Extr	7075-T73511 Al Aly
35		Support 74A314240-2013	1MA160D01-10089 Extr	7075-T73 Al Aly
36	<div>28</div> <div>27</div> <div>29</div>	Stiffener 74A314233-2315 74R310007-2021 74A314233-2627	0.050 Sheet	7075-T6 Alclad
37		Channel 74A314649-2001	0.050 Sheet	7075-T6 Alclad
38	<div>19</div> <div>10</div>	Bracket 74A314239-2021 74A314239-2033	0.050 Sheet	7075-T6 Alclad
39	<div>22</div> <div>23</div> <div>10</div>	Bracket 74A314238-2001 Stiffener 74A314462-2001 74A314462-2003	0.050 Sheet Machining 7075-T73511 Al Aly	7075-T6 Alclad 7075-T73511 Al Aly
40	<div>3</div> <div>4</div>	Screen 74A314233-2453 74A314233-2217	8 Mesh .025 Dia. 6.90 x 7.20	304 Cres
41	<div>5</div> <div>6</div>	Bracket 74A314237-2009 74A314237-9001	0.050 Sheet	7075-T6 Alclad
42	<div>15</div> <div>16</div>	Support 74A314236-2003 74A314236-2007	1MA160D05-10394 Extr	7075-T73511 Al Aly
43		Bracket 74A314237-2007	0.050 Sheet	7075-T6 Alclad

Figure 1. Web Material Index (Sheet 5)
































Idx No.	Eft	Nomenclature and Part No.	Description	Material
44		Bracket 74A314238-2013	0.050 Sheet	7075-T6 Alclad
45		Stiffener 74A314233-2047	0.050 Sheet	7075-T6 Alclad
46		Bracket 74A314239-2003	0.050 Sheet	7075-T6 Alclad
47	 	Bracket 74A314233-2387 74A314233-2603	0.050 Sheet	7075-T6 Alclad
48		Stiffener 74A314233-2305	0.050 Sheet	7075-T6 Alclad
49		Longeron 74A314619-2019	1MA164D01-10024 Extr	7075-T76 Al Aly
LEGEND				
	161737 AND UP.			
	161702 THRU 161736.			
	F/A-18A.			
	F/A-18B.			
	161353 THRU 161519.			
	161520 AND UP.			
	161520 THRU 161523.			
	161524 THRU 161528.			
	Lands are 0.056 and bays are 0.036.			
	161520 THRU 161523, 161702 AND UP.			
	F/A-18B 161354 THRU 161360.			
	F/A-18B 161704 AND UP.			
	161353 THRU 161359.			
	161360 THRU 161519.			
	161353 THRU 161528.			
	161702 AND UP.			
	F/A-18A 161353 THRU 161528.			
	F/A-18A 161702 AND UP.			
	161353 THRU 161519 AND 161524 THRU 161528.			
	161353 THRU 161924.			
	161925 AND UP.			
	161353 THRU 161519 BEFORE F18 AFC 27.			
	161524 THRU 161528; ALSO 161353 THRU 161519 AFTER F18 AFC 27.			
	162394 AND UP; ALSO 161353 THRU 161987 AFTER F18 AFC 48.			
	161353 THRU 161528 BEFORE F18 AFC 48.			
	161702 THRU 161987 BEFORE F18 AFC 48.			
	161353 THRU 161987 AFTER F18 AFC 48.			
	161353 THRU 161987 BEFORE F18 AFC 48.			
	162394 AND UP.			

Figure 1. Web Material Index (Sheet 6)

DEPOT MAINTENANCE

STRUCTURE REPAIR

ALIGNMENT DEVICE - RE174314235-1, NOSE LANDING GEAR TRUNNION,
DRAG BRACE AND LINEAR ACTUATOR SUPPORTS

Reference Material

Line Maintenance Procedures	A1-F18AC-LMM-000
Ground Safety Devices Required During All Ground Operations	A1-F18AC-PCM-000
Landing Gear and Related Systems	A1-F18AC-130-300
Miscellaneous Structural Maintenance Fixtures	AG-000AC-110-000
N.L.G. Trunnion Drag Brace, and Linear Actuator Support Alignment Device Alignment Set	WP049 00

Alphabetical Index

Subject	Page No.
Description	1
Aircraft Preparation	1
Tool Preparation	7
Installation and Alignment Check on Undamaged 74A314626 Actuator Support	10
Installation and Alignment Check Without 74A314626 Actuator Support in Place	11
Final Aircraft Preparation	12

Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
-	Vacuum Cleaner
RE374314235	Tool Set, N.L.G. Trunnion Drag Brace Supports
RE274314235	Locating Fixture, N.L.G. Trunnion Drag Brace Supports (Jacking Beam)
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
■ P-D-680, TYPE II	Dry Cleaning Solvent

1. DESCRIPTION.

2. The RE174314235-1 alignment device provides the method to evaluate the location and alignment of the nose landing gear drag support, trunnion support and linear actuator support.

3. AIRCRAFT PREPARATION. See figure 1.

a. Make sure electrical and hydraulic power is off (A1-F18AC-LMM-000).

b. Make sure safety devices required for ground operations are installed (A1-F18AC-PCM-000).

c. Jack aircraft using RE274314235 jacking beam with two 270AS100 hydraulic jacks for forward fuselage jack point location, detail A; and 782D1100 jack for each wing jack point location, detail B (A1-F18AC-LMM-000).

d. Remove entire nose landing gear assembly (A1-F18AC-130-300).



Dry Cleaning Solvent, P-D-680, Type II

25

e. Clean bearing sleeves and supports with clean cheesecloth moistened with dry cleaning solvent, P-D-680, Type II.

f. Wipe area dry with clean dry cheesecloth.

g. Inspect 74A314663 drag brace bearing sleeves located in 74A314612 drag brace support, view E.

(1) If bearing sleeve is cracked or broken, do bearing sleeve removal, drag brace, WP023 02.

(2) If inside diameter of bearing sleeve exceeds engineering tolerance of $2.2500 + 0.0018 - 0.0000$ inch diameter, do bearing sleeve removal, drag brace, WP023 02.

(3) Install sleeve fittings (detail 135) into undamaged 74A314663 bearing sleeve or install applicable support fittings (detail 136, 137, 138 or 139) into 74A314612 drag brace support if 74A314663 bearing sleeve was removed because of damage, detail E.

h. Inspect 74A314395 trunnion sleeves located in 74A314235 trunnion support, view D.

(1) If bearing sleeve is cracked or broken, do bearing sleeve removal trunnion, WP023 02.

(2) If inside diameter of bearing sleeve exceeds engineering tolerance of $1.8750 + 0.0016 - 0.0000$ inch diameter, do bearing sleeve removal, trunnion, WP023 02.

(3) Install sleeve fittings (detail 117) into undamaged 74A314395 bearing sleeve or install applicable support fittings (details 118, 119, 120 or 121) into 74A314235 trunnion support if 74A314395 bearing sleeve was removed because of damage, detail D.

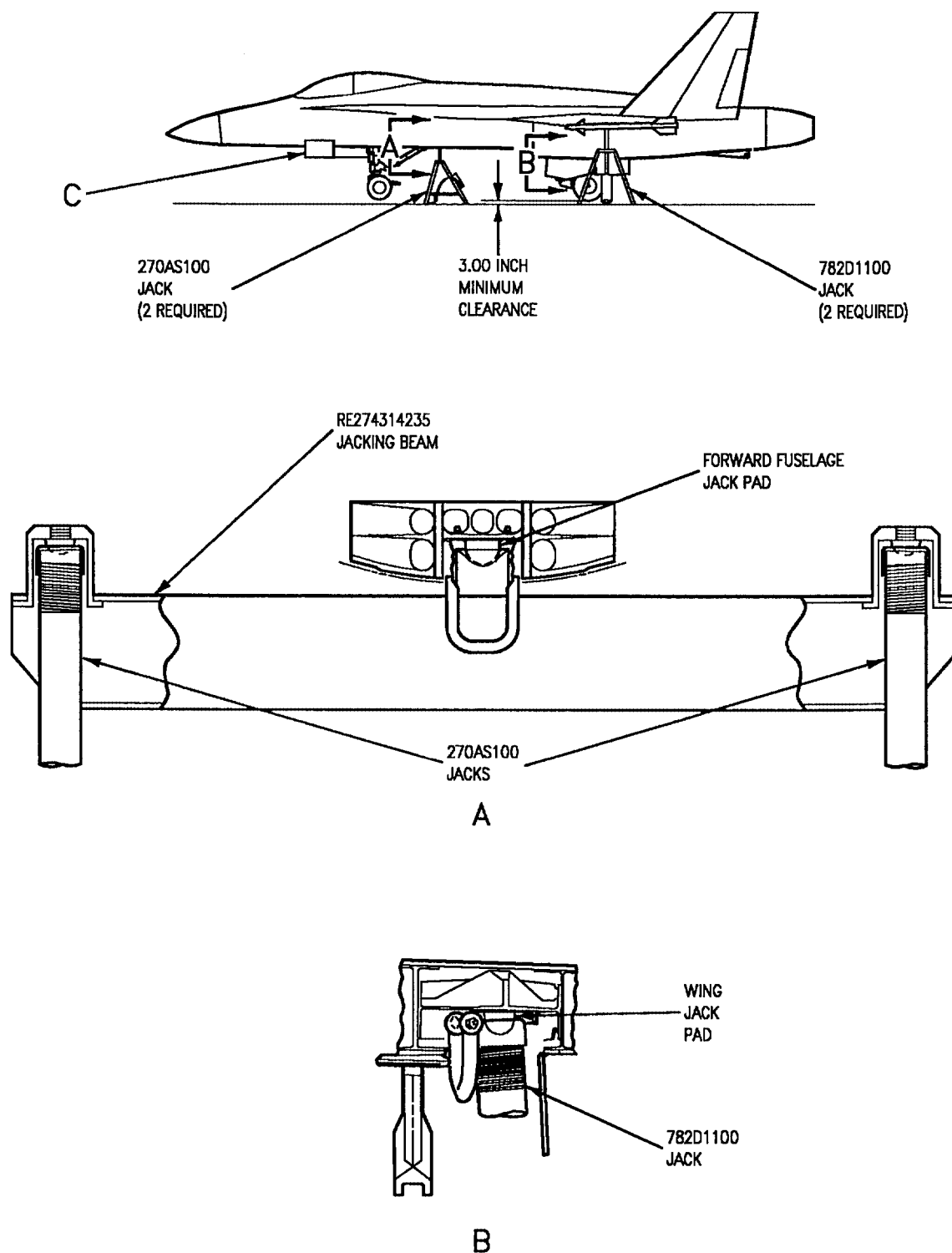


Figure 1. Aircraft Preparation (Sheet 1)

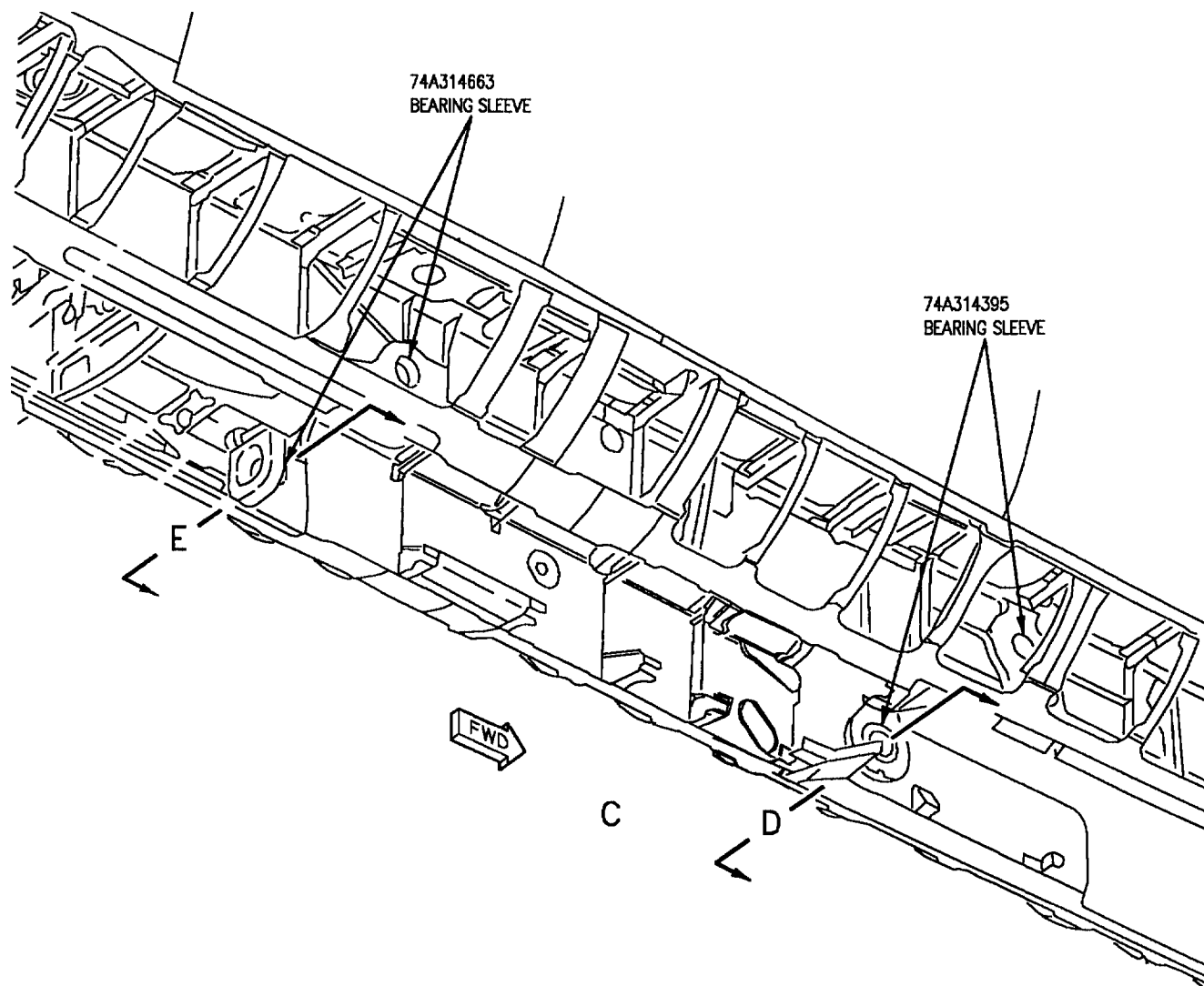
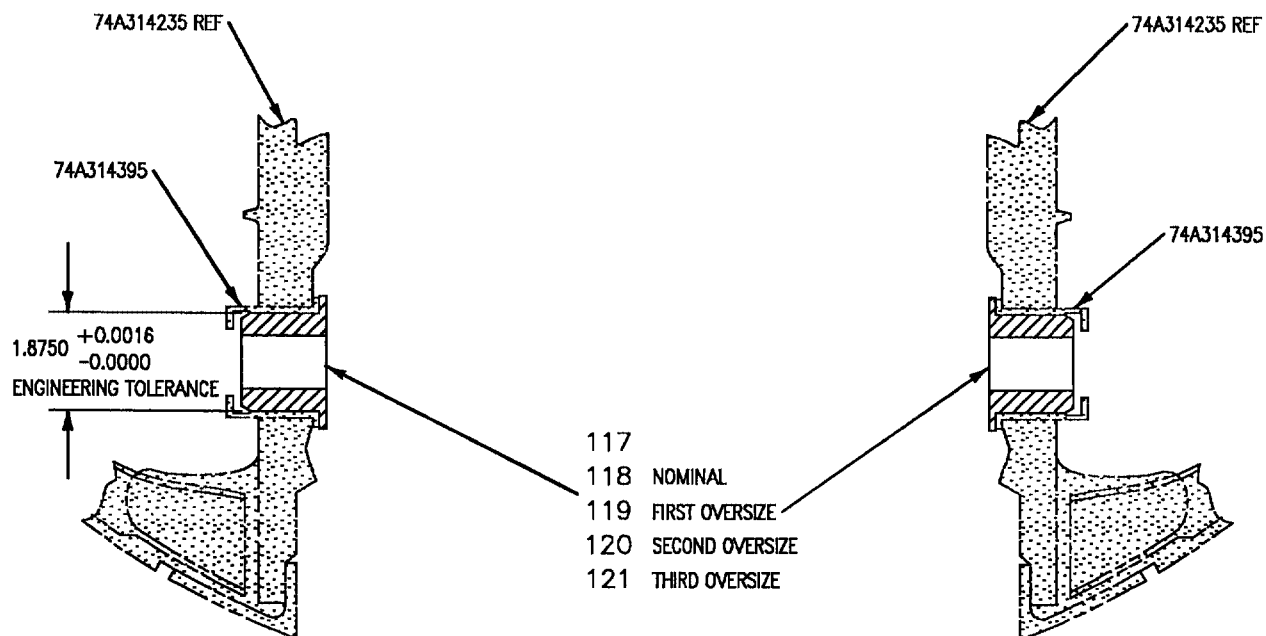
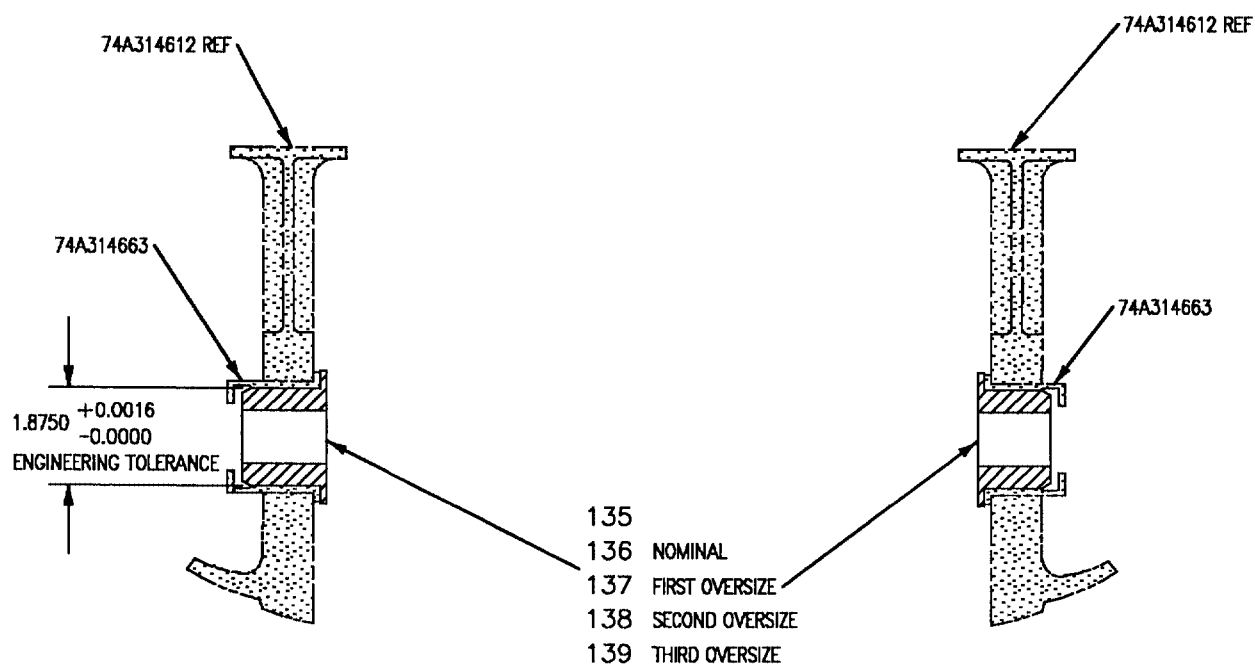


Figure 1. Aircraft Preparation (Sheet 2)



D



E

Figure 1. Aircraft Preparation (Sheet 3)

Detail No.	Name	Function
117	Sleeve Fitting	Used to pin alignment frame into trunnion support having an undamaged 74A314395 bearing sleeve.
118	Support Fitting	Used to pin alignment frame into 2.1215 inch diameter, nominal size, hole in trunnion support.
119	Support Fitting	Used to pin alignment frame into 2.1365 inch diameter, first oversize, hole in trunnion support.
120	Support Fitting	Used to pin alignment frame into 2.1515 inch diameter, second oversize, hole in trunnion support.
121	Support Fitting	Used to pin alignment frame into 2.1850 inch diameter, third oversize, hole in trunnion support.
135	Sleeve Fitting	Used to pin alignment frame into drag brace support having an undamaged 74A314663 bearing sleeve.
136	Support Fitting	Used to pin alignment frame into 2.4483 inch diameter, nominal size, hole in drag brace support.
137	Support Fitting	Used to pin alignment frame into 2.4633 inch diameter, first oversize, hole in drag brace support.
138	Support Fitting	Used to pin alignment frame into 2.4783 inch diameter, second oversize, hole in drag brace support.
139	Support Fitting	Used to pin alignment frame into 2.5083 inch diameter, third oversize, hole in drag brace support.

Figure 1. Aircraft Preparation (Sheet 4)

4. PREPARATION OF TOOL. See figure 2.

a. Retract L-pins (detail 134) located on aft leg of alignment frame (detail 12).

b. Retract L-pins (detail 130) located on lower leg of alignment frame (detail 11).

c. Make sure L-pin (detail 153) is disengaged from aft leg of alignment frame (detail 12).

NOTE

If 74A314626 actuator support is in place and undamaged, prepare upper leg of alignment frame (detail 11) per step d. If 74A314626 actuator support is damaged and requires replacement, prepare upper leg of alignment frame (detail 11) per step e.

d. Prepare upper leg of alignment frame for undamaged 74A314626 actuator support.

(1) Position actuator support locator (detail 101) on upper leg of alignment frame (detail 11).

(2) Align actuator support locator (detail 101) in nominal position by installing L-pin (detail 154).

(3) Secure actuator support locator (detail 101) to upper leg of alignment frame (detail 11) by installing screws (detail 103) two places.

e. Prepare upper leg of alignment frame for damaged or missing 74A314626 actuator support.

(1) Position actuator support locator (detail 110) on upper leg of alignment frame (detail 11).

(2) Align actuator support locator (detail 110) in nominal position by installing L-pin (detail 154).

(3) Secure actuator support locator (detail 110) to upper leg of alignment frame (detail 11) by installing screws (detail 103) two places.

NOTE

Forward leg of alignment frame (detail 14) is not attached on lower leg of alignment frame (detail 12) until tool is installed on aircraft. However, forward leg must be temporarily attached to lower leg to preform alignment check using AK174314235-1.

f. Install tool into AK174314235-1 and check for accurate alignment using recycle procedures shown in (AG-000AC-110-000, WP049 00).

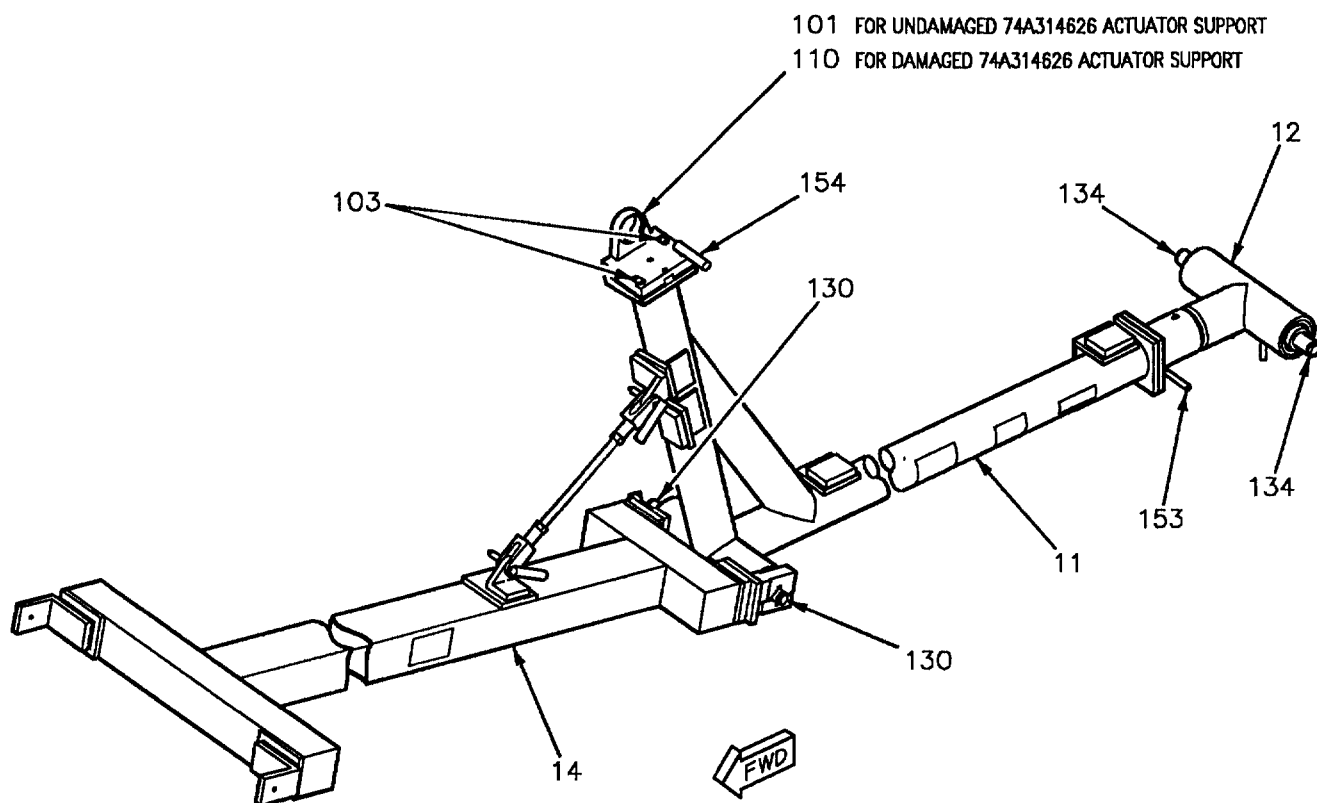


Figure 2. Preparation of Tool (Sheet 1)

Detail No.	Name	Function
11	Alignment Frame	L shaped frame used to attach various details.
12	Alignment Frame	T shaped frame used for alignment check of drag brace support.
14	Alignment Frame	T shaped frame used for alignment check between 74A314208 plate.
101	Actuator Support Locator	Used to locate undamaged 74A314626 actuator support.
103	Screw	Used to secure actuator support locator (detail 101 or 110) to alignment frame (detail 11).
110	Actuator Support Locator	Used to locate damaged or missing 74A314626 actuator support.
130	L-Pin	Used to inspect X, Y, and Z location of 74A314235 trunnion support.
134	L-Pin	Used to inspect X, Y, and Z location of 74A314612 drag brace support.
153	L-Pin	Used to inspect for accurate alignment between alignment frame (detail 12) and alignment frame (detail 11) when installed in AK174314235-1.
154	L-Pin	Used to align actuator support locator (detail 101 or 110) in nominal position.

Figure 2. Preparation of Tool (Sheet 2)

5. TOOL INSTALLATION AND ALIGNMENT CHECK WHEN TOOL IS INSTALLED ON UN- DAMAGED 74A314626 ACTUATOR SUP- PORT. See figure 3.

NOTE

If any alignment check fails to meet the requirements of procedures below due to damaged NLG 74A314235 trunnion support and/or 74A314612 drag brace support attach points. Depot engineering disposition is required.

a. Position upper leg of alignment frame (detail 11) until hole diameter in actuator support fitting locator (detail 101) is aligned with hole diameter in locator 74A314626 actuator support, see detail A.

b. Insert locator pin (detail 106) into 74A314626 actuator support and actuator support fitting locator (detail 101); secure by installing washer (detail 107) and nut (detail 108), see detail A.

c. Position lower leg of alignment frame (detail 11) inline with hole diameter in trunnion sleeve fitting (detail 117, 118, 119, 120 or 121) and engage L-pins (detail 130).

d. Check alignment of drag brace hole diameters by engaging L-pins (detail 134) into sleeve fitting (detail 135, 136, 137, 138 or 139).

e. Check for correct forward/aft distance between trunnion support fittings and drag brace fittings by inserting GO/NO-GO gage (detail 116) between alignment frames (details 12 and 13).

f. Install forward leg of alignment frame (detail 14).

(1) Position alignment frame V-blocks (details 15, 16) on L-pins (detail 130).

(2) Secure alignment frame V-blocks (details 15, 16) to L-pins (detail 130) by installing V-block clamps (detail 127) and screws (detail 128).

(3) Position forward leg of alignment frame (detail 14) in correct Z plane location by installing alignment arm (detail 142) using L-pins (detail 143)

NOTE

Step g applies only if 74A314395 bearing sleeves and trunnion sleeve fittings (detail 117) are installed.

g. Check for correct X plane location at 74A314235 trunnion support by inserting 0.250 inch feeler gage between trunnion sleeve fitting (detail 117) and alignment frame V-blocks (detail 15, 16), see detail B.

NOTE

Step h applies only if 74A314395 bearing sleeves are removed and applicable trunnion support fittings (detail 118, 119, 120 or 121) are installed.

h. Check for correct X plane location at 74A314235 trunnion support by obtaining an equal feeler measurement between trunnion support fittings (detail 118, 119, 120, or 121) and alignment frame V-blocks (detail 15, 16), see detail C.

NOTE

If correct X plane location for 74A314235 trunnion supports cannot be obtained per steps g or h, do steps i through k.

i. Remove L-pin (detail 154) from actuator support locator (detail 101), see detail A.

j. Loosen screws (detail 103) two places and slide upper leg of alignment frame (detail 11) inboard or outboard until equal distance is maintained between trunnion sleeve fittings (detail 117, 118, 119, 120, or 121) and alignment frame V-blocks (detail 15, 16), see details A, B, and C.

k. Tighten screws (detail 103), two places.

NOTE

Step l applies only if 74A314663 bearing sleeves and drag brace sleeve fittings (detail 135) are installed.

l. Check for correct X plane location at 74A314612 drag brace support by inserting 1.000 inch feeler gage between drag brace sleeve fittings (detail 135) and aft alignment frame bushings (detail 126), see detail D.

NOTE

Step m applies only if 74A314663 bearing sleeves are removed and applicable drag brace support fittings (detail 136, 137, 138 or 139) are installed.

m. Check for correct X plane location at 74A314612 drag brace support by obtaining an equal feeler measurement between applicable drag brace support fittings (detail 136, 137, 138, or 139) and aft alignment frame bushings (detail 126), see detail E.

n. Check for correct X plane location at 74A314208 plate by inserting 0.500 inch feeler gage between L brackets (detail 146) and 74A314208 plates, see detail F.

6. TOOL INSTALLATION AND ALIGNMENT CHECK WHEN TOOL IS INSTALLED WITHOUT 74A314626 ACTUATOR SUPPORT IN PLACE. See figure 3.

NOTE

If any alignment check fails to meet the requirements of procedures below due to damaged NLG 74A314235 trunnion support and/or 74A314612 drag brace support attach points. Depot engineering disposition is required.

a. Position lower leg of alignment frame (detail 11) inline with hole diameter in trunnion sleeve fittings (detail 117, 118, 119, 120 or 121) and engage L-pins (detail 130).

b. Position aft leg of alignment frame (detail 12) inline with hole diameter in drag brace support fittings (detail 135, 136, 137, 138, or 139) and engage L-pins (detail 134).

c. Locate spacers (detail 132) on L-pins (detail 130) and position against alignment frame bushings (detail 126); secure by tightening screws (detail 133), see detail G.

NOTE

Step d applies only if 74A314395 bearing sleeves and trunnion sleeve fittings (detail 117) are installed.

d. Check for correct X plane location at 74A314235 trunnion support by inserting 0.250 inch feeler gage between spacers (detail 132) and trunnion sleeve fittings (detail 117), see detail G.

NOTE

Step e applies only if 74A314395 bearing sleeves are removed and applicable trunnion support fittings (detail 118, 119, 120 or 121) are installed.

e. Check for correct X plane location at 74A314235 trunnion support by obtaining an equal feeler measurement between spacers (detail 132) and trunnion support fittings (detail 118, 119, 120, or 121), see detail H.

NOTE

Step f applies only if 74A314663 bearing sleeves and drag brace sleeve fittings (detail 135) are installed.

f. Check for correct X plane location at 74A314612 drag brace support by inserting 1.000 inch feeler gage between drag brace sleeve fittings (detail 135) and aft alignment frame bushings (detail 126), see detail D.

NOTE

Step g applies only if 74A314663 bearing sleeves are removed and applicable drag brace support fittings (detail 136, 137, 138, or 139) are installed.

g. Check for correct X plane location at 74A314612 drag brace support by obtaining an equal feeler measurement between applicable drag brace support fittings (detail 136, 137, 138, or 139) and aft alignment frame bushings (detail 126), see detail E.

h. Check for correct for forward/aft distance between trunnion support fittings and drag brace fittings by inserting GO/NO-GO gage (detail 116) between alignment frames (details 12 and 13).

NOTE

Step i applies if 74A314626 actuator support fitting has the 74A314419-2005 bushing with 0.8760 + 0.0000 - 0.0015 inch diameter hole.

i. Locate 74A314626 actuator support fitting on actuator support fitting locator (detail 110) by inserting locator pin (detail 112); secure by installing washer (detail 113) and nut (detail 114), see detail J.

NOTE

Step j applies if 74A314626 actuator support fitting has the 74A314419-2003 bushing with 0.8700 + 0.0000 - 0.0015 inch diameter hole.

j. Locate 74A314626 actuator support fitting on actuator support fitting locator (detail 110) by inserting locator pin (detail 122); secure by installing washer (detail 113) and nut (detail 114), see detail J.

k. Remove spacers (detail 132).

l. Install forward leg of alignment frame (detail 14):

(1) Position alignment frame V-blocks (detail 15, 16) on L-pins (detail 130).

(2) Secure alignment frame V-blocks (detail 15, 16) to L-pins (detail 130) by installing V-block clamps (detail 127) and screws (detail 128).

(3) Position forward leg of alignment frame (detail 14) in correct Z plane location by installing alignment arm (detail 142) using L-pins (detail 143).

(4) Check for correct X plane location at 74A314208 plate by inserting 0.500 inch feeler gage between L brackets (detail 146) and 74A314208 plates, see detail F.

7. FINAL AIRCRAFT PREPARATION. See figure 1.

a. Vacuum clean any loose debris from nose landing gear area.

b. Install entire nose landing gear assembly (A1-F18AC-130-300).

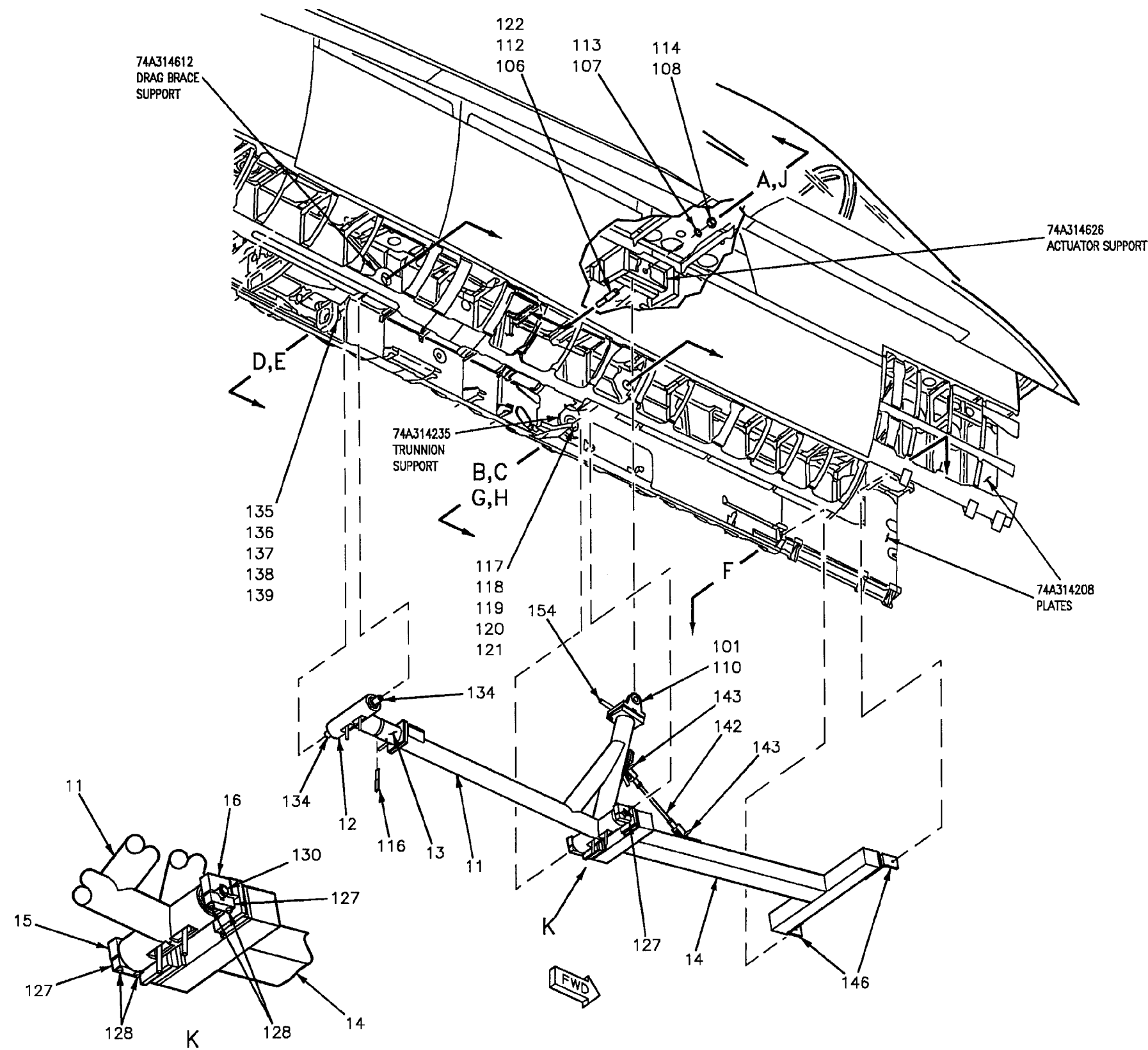
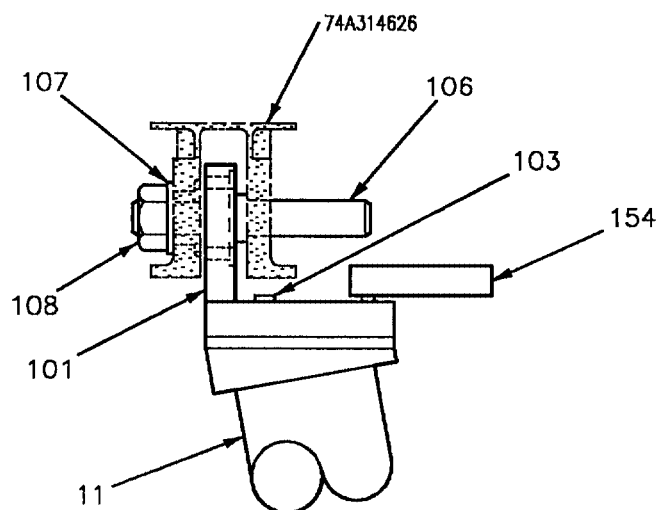


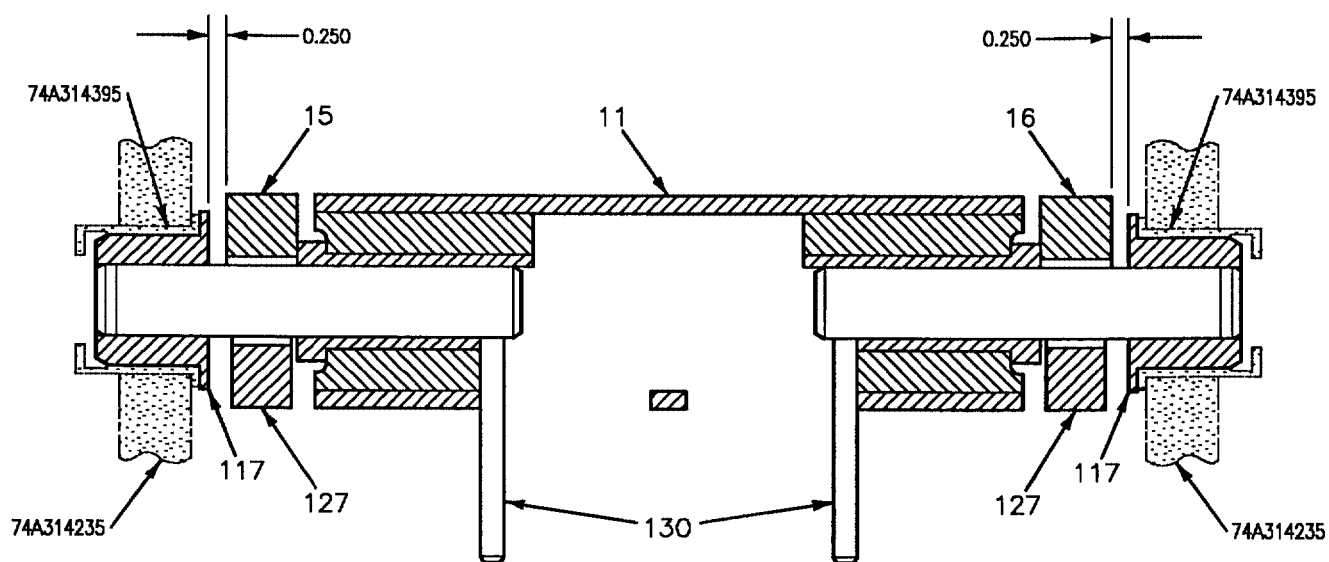
Figure 3.

Figure 3. Tool Installation and Alignment Check (Sheet 1)

Figure 3.



A



B

Figure 3. Tool Installation and Alignment Check (Sheet 2)

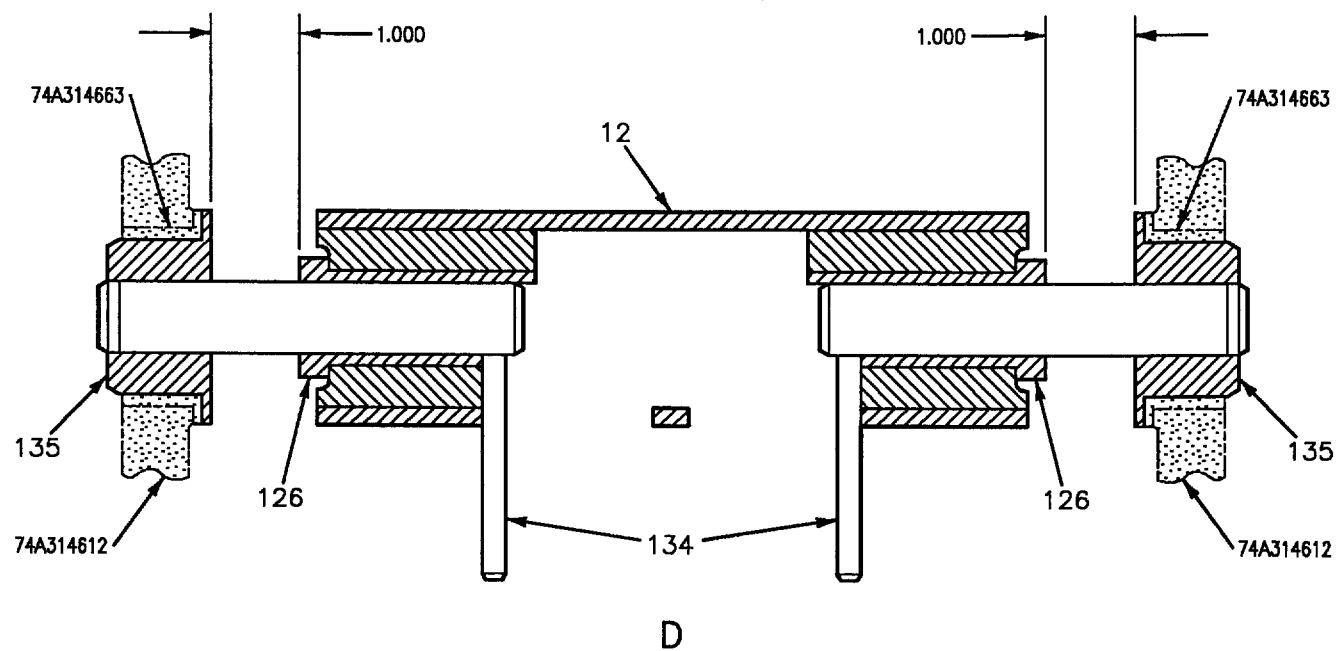
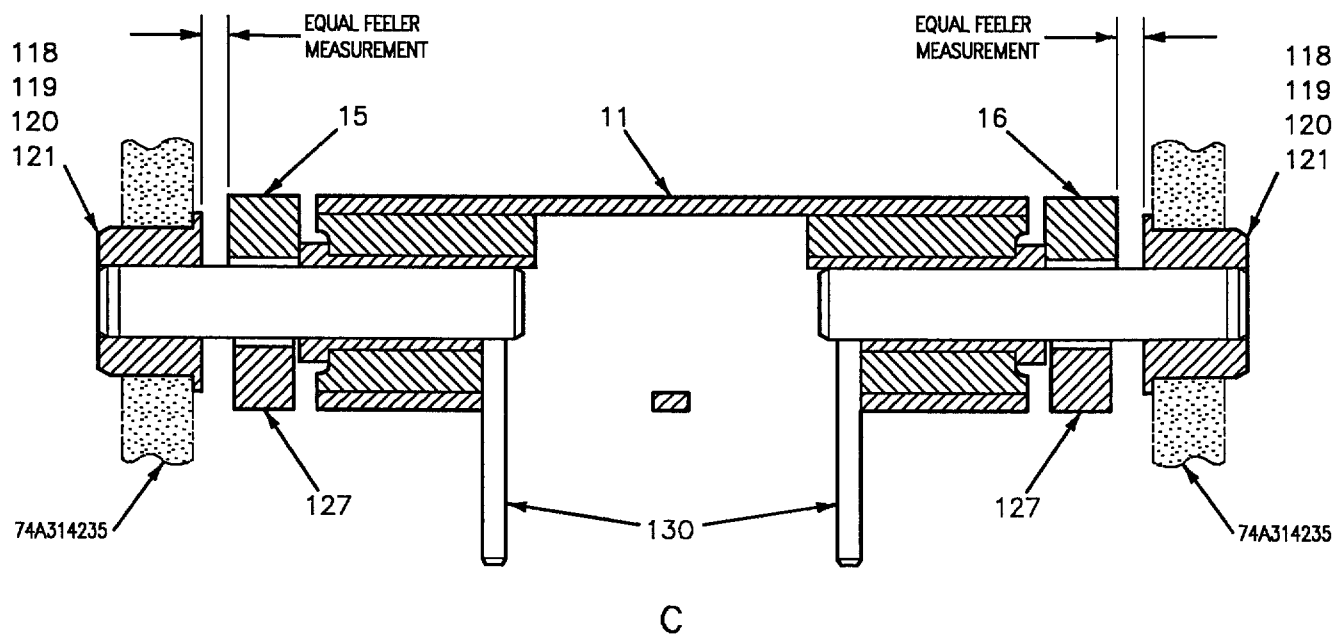


Figure 3. Tool Installation and Alignment Check (Sheet 3)

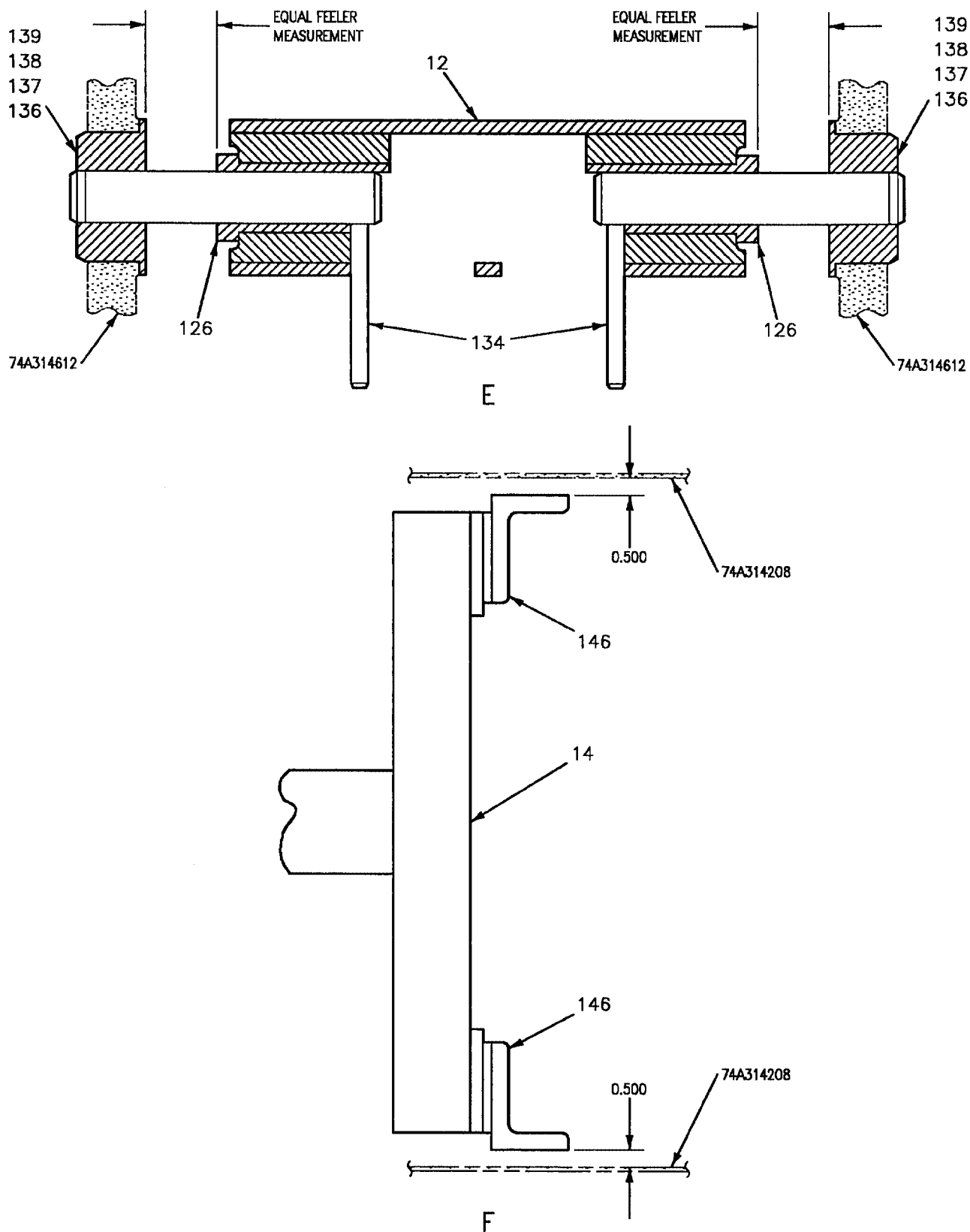


Figure 3. Tool Installation and Alignment Check (Sheet 4)

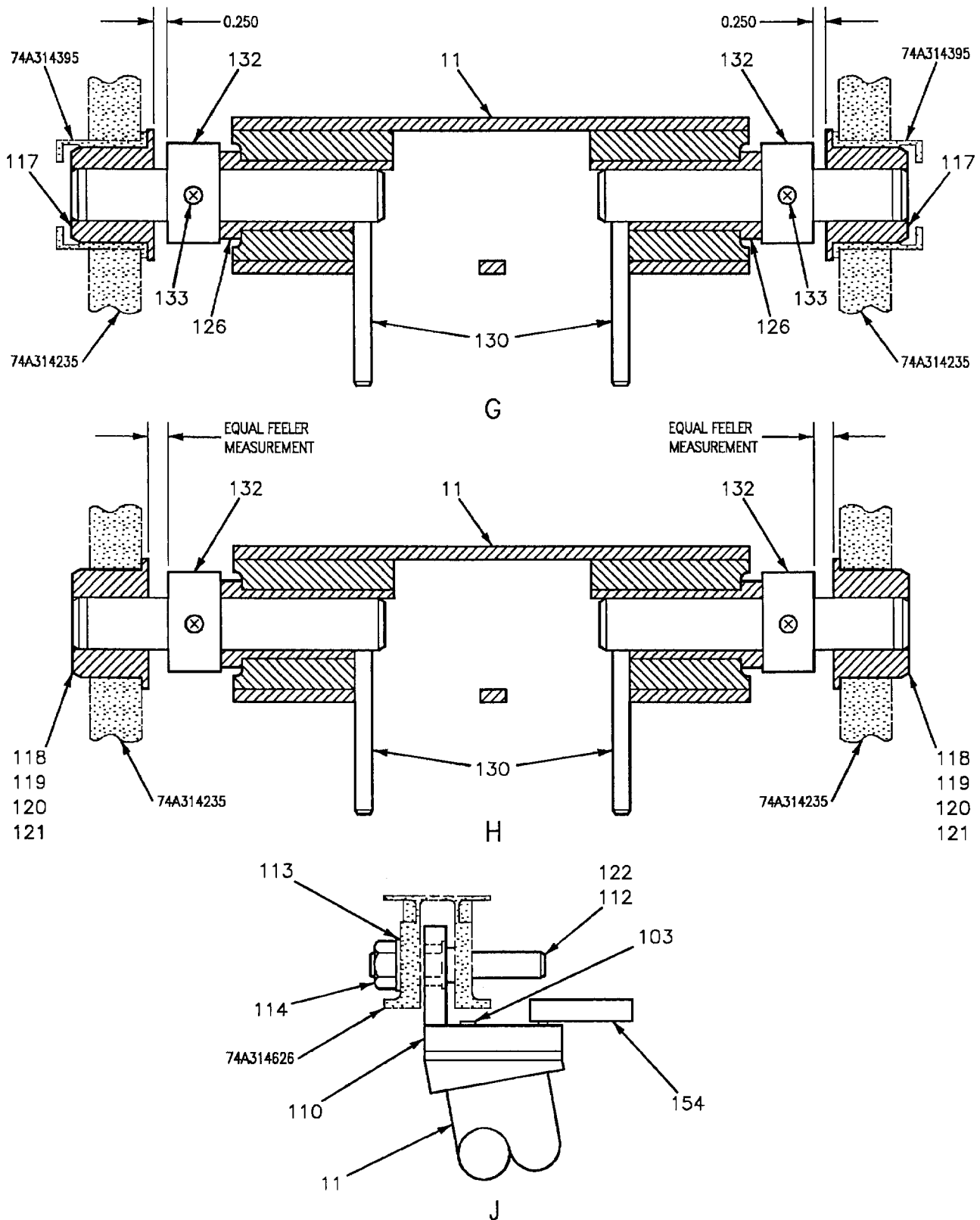


Figure 3. Tool Installation and Alignment Check (Sheet 5)

Detail No.	Name	Function
11	Alignment Frame	L-shaped frame used to attach various details.
12	Alignment Frame	T-shaped frame used for alignment check of drag brace support.
13	Alignment Frame	Frame section used for forward/aft measurement between support and drag brace support.
14	Alignment Frame	T-shaped frame used for alignment check between 74A314208 plates.
15	Alignment Frame V-blocks	Locates (detail 14) on L-pin (detail 130) for L/H side.
16	Alignment Frame V-block	Locates (detail 14) on L-pin (detail 130) for R/H side.
101	Actuator Support Fitting Locator	Locates tool to undamaged 74A314626 actuator support fitting.
103	Screw	Secures actuator support fitting locator (details 101 or 110) to alignment frame (detail 11).
106	Locator Pin	Locates 74A314626 actuator support on actuator support fitting locator (detail 101).
107	Washer	Used with locator pin (detail 106) and nut (detail 108).
108	Nut	Secures locator pin (detail 106) to actuator support fitting locator
110	Actuator Support Fitting Locator	Locates new 74A314626 actuator support fitting.
112	Locator Pin	Locates 74A314626 actuator support having 74A314419-2005 bushing to actuator support locator (detail 110).
113	Washer	Used with locator pins (detail 112 and 122) and nut (detail 114).
114	Nut	Secures locator pin (detail 112 or 122) to actuator support fitting locator (detail 110) and 74A314626 actuator support.
116	Go/No-Go Gage	Check forward/aft distance between trunnion support and drag brace support.
117	Sleeve Fitting	Used to pin alignment frame (detail 11) into trunnion support having an undamaged 74A314395 bearing sleeve.
118	Support Fitting	Used to pin alignment frame (detail 11) into 2.1215 inch diameter, nominal size, hole in trunnion support.
119	Support Fitting	Used to pin alignment frame (detail 11) into 2.1365 inch diameter, first oversize hole in trunnion support.

Figure 3. Tool Installation and Alignment Check (Sheet 6)

Detail No.	Name	Function
120	Support Fitting	Used to pin alignment frame (detail 11) into 2.1515 inch diameter, second oversize, hole in trunnion support.
121	Support Fitting	Used to pin alignment frame (detail 11) into 2.1850 inch diameter, third oversize, hole in trunnion support.
122	Locator Pin	Locates 74A314626 actuator support having 74A314419-2003 bushing to actuator support locator (detail 110).
126	Aft Alignment Frame Bushing	Guides L-pins (detail 130 and 134); used as reference plane for measuring X plane location.
127	V-block clamps	Secures alignment frame (detail 14) to L-pins (detail 130) by clamping to alignment frame v-blocks (detail 15, 16).
128	Screws	Secures v-blocks clamps (detail 127) to alignment frame v-blocks (detail 15, 16).
130	L-Pins	Pins alignment frame (detail 11) to 74A314235 trunnion support.
132	Spacers	Locates alignment frame (detail 11) in X plane location when 74A314626 actuator support is removed.
133	Screws	Secures spacers (detail 132) to L-pins (detail 130).
134	L-Pins	Pins alignment frame (detail 12) to 74A314612 drag brace support.
135	Sleeve Fitting	Used to pin alignment frame (detail 12) into drag brace support having an undamaged 74A314663 bearing sleeve.
136	Support Fitting	Used to pin alignment frame (detail 12) into 2.4483 inch diameter, nominal size, hole in drag brace support
137	Support Fitting	Used to pin alignment frame (detail 12) into 2.4633 inch diameter, first oversize hole in drag brace support.
138	Support Fitting	Used to pin alignment frame (detail 12) into 2.4783 inch diameter, second oversize, hole in drag brace support.
139	Support Fitting	Used to pin alignment frame (detail 12) into 2.5083 inch diameter, third oversize, hole in drag brace support.
142	Alignment Arm	Positions alignment frame (detail 14) in correct Z plane location.
143	L-Pins	Secures alignment arm (details 142) to alignment frames (detail 11 and 14).
146	L-Brackets	Reference plane used to check for correct X plane location between 74A314208 plates.
154	L-Pin	Aligns actuator support locator (detail 101 or 110) in nominal position.

Figure 3. Tool Installation and Alignment Check (Sheet 7)

DEPOT MAINTENANCE**STRUCTURE REPAIR****LOCATING FIXTURE - RE274314235-1, NOSE LANDING GEAR TRUNNION,
DRAG BRACE SUPPORTS**

Reference Material

Line Maintenance Procedures	A1-F18AC-LMM-000
Jacking	WP038 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Piping Installation	A1-F18AC-PIM-000
Landing Gear and Related Systems	A1-F18AC-130-300
Miscellaneous Structural Maintenance Fixtures	AG-000-AC-110-000
Structure Repair General Information	A1-F18AC-SRM-200
Adhesive, Cement, and Sealant; Preparation and Application	WP011 00
Accessory Kits and Spray Coolant Tank	WP004 16
Aircraft Leveling	WP006 00
Hydraulic Pump Assembly, Pneumatic	WP004 18
Structure Repair	A1-F18AC-SRM-221
Nose Landing Gear Trunnion, Drag Brace Supports, Replacement	WP023 03

Alphabetical Index

Subject	Page No.
Aircraft Preparation	2
Bearing Sleeve Removal	17
Drag Brace	17
Trunnion	17
Description	2
Drag Brace Bearing First and Second Oversize Sleeve Installation	99
Oversize Bearing Sleeve Installation	103
Set Up	99
Sleeve Reaming	105
Spotfacing	106
Support Reaming	101
Drag Brace Bearing Sleeve Installation, Nominal Size	28
Drag Brace Sleeve Reaming	56
Reaming	58
Set Up	56
Spotfacing	60
Drag Brace Third Oversize Sleeve Installation	158
Cold Working Drag Brace	168
Oversize Sleeve Installation	177
Set Up	156
Sleeve Reaming	186
Spotfacing	191
Support Final Reaming After Cold Working	174
Support Reaming	158
Locating Fixture Installation	10
Locating Fixture Preparation	3
Locating Fixture Removal	200
Final Aircraft Preparation	200

Alphabetical Index (Continued)

Subject	Page No.
Trunnion Bearing First and Second Oversize Sleeve Installation	75
Oversize Bearing Sleeve Installation	79
Set Up	75
Sleeve Reaming	81
Spotfacing	82
Support Reaming	76
Trunnion Bearing Sleeve Installation, Nominal Size	23
Trunnion Bearing Sleeve Reaming	35
Reaming	37
Set Up	35
Spotfacing	38
Trunnion Bearing Third Oversize Sleeve Installation	121
Cold Working Trunnion	134
Oversize Sleeve Installation	143
Set Up	121
Sleeve Reaming	144
Spotfacing	145
Support Final Reaming After Cold Working	140
Support Reaming	123

Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
-	Vacuum Cleaner
RE374314235	Tool Set, N.L.G. Trunnion Drag Brace Supports
RE874000002-1	Spray Mist Coolant Tank
-	Torque Wrench, 0 to 150 Foot Pounds
74D110323-1001	Hydraulic Pump Assembly-Pneumatic

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
■ P-D-680, TYPE II	Dry Cleaning Solvent
MIL-S-83430	Sealing Compound High Temperature

1. DESCRIPTION.

2. The RE274314235-1 locating fixture and RE374314235-1 tool set provides the method for repair conditions replacing worn, broken, or cracked bearing sleeves when trunnion/or drag brace support fittings are undamaged. Damage is determined by using the RE174314235-1 Alignment Device procedure (WP023 01).

3. AIRCRAFT PREPARATION. See figure 1.

a. Make sure electrical and hydraulic power is off (A1-F18AC-LMM-000).

b. Jack aircraft using RE274314235 jacking beam with two 270AS100 hydraulic jacks for forward fuselage jack point locating, detail A; and 59J6185 jack for each wing jack point location, detail B, using instructions as shown in (A1-F18AC-LMM-000, WP038 00). Aircraft leveling (A1-F18AC-SRM-200, WP006 00).

c. Remove entire nose landing gear assembly (A1-F18AC-130-300).

d. Remove doors 25, 30 and 35, (A1-F18AC-LMM-010).

e. Remove following tube assemblies from right hand trough area: 74A690973, 74A690777, 74A690972, 74A690780, 74A580686, 74A580609, 74A690969, 74A690925, 74A690966, 74A690926, 74A580671, 74A580670, 74A830948, 74A830766, 74A830765, 74A830947, 74A580720 and 74A580690, (A1-F18AC-PIM-000, WP038 00, WP039 00 and WP040 02).

f. Remove following tube assemblies from left hand trough area: 74A830864, 74A830863, 74A831316, 74A831227, 74A710302, 74A690703, 74A690701, 74A710300, 74A690702, 74A690700, 74A690706 and 74A690707, (A1-F18AC-PIM-000, WP029 00, WP030 00 and WP031 00).

g. Remove 74A314255 support, 74A314424 fairing and 74A314228 former from lower left hand keel, detail C.

h. Remove ST3M723N2M10-5 gang channel from 74A314619 longeron, immediately forward of trunnion fitting, detail C.

i. Remove 74A314253 support, 74A314232 angle and 74A314233 angle from forward inboard right hand longeron 74A314619, detail D.

j. Remove 74A314228 former and 74A314424 fairing from right hand longeron 74A314619, detail C.

k. Remove 74A314454 support from left hand web 74A314818, detail C.

l. Remove ST3M723N2M9F3 gang channel from lower right hand longeron 74A314612, detail C.

4. LOCATING FIXTURE PREPARATION.

See figure 2.

a. Connect shop air supply to elbow (detail 469) and check pressure gage (detail 347) to make sure that there is nominal 90 psi pressure before operating motor (detail 331).

b. Install motor (detail 331) into bracket (detail 43) on lower right hand side of tool frame (detail 31).

c. Belt Adjustments. Loosen four bolts (detail 103) and tighten nut (detail 585) on shaft (detail 586) moving the belt (detail 462) forward until slack is taken up.

d. Attach parts to Subassembly A.

(1) Slide coupling (detail 327) through lower 4.0 inch hole in plate (detail 191) onto shaft (detail 133) of Subassembly A, secured with key (detail 337), detail B.

(2) Slide coupling (detail 329) through lower 4.0 inch hole in plate (detail 191) and rotate coupling (detail 329) locking it under three lock screws (detail 189) on Subassembly A, detail B.

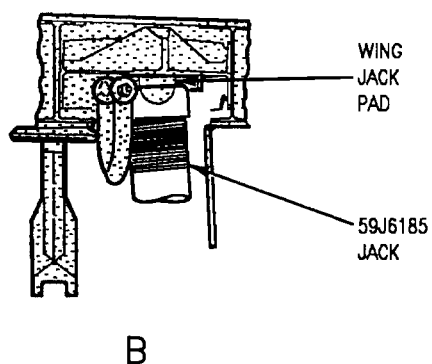
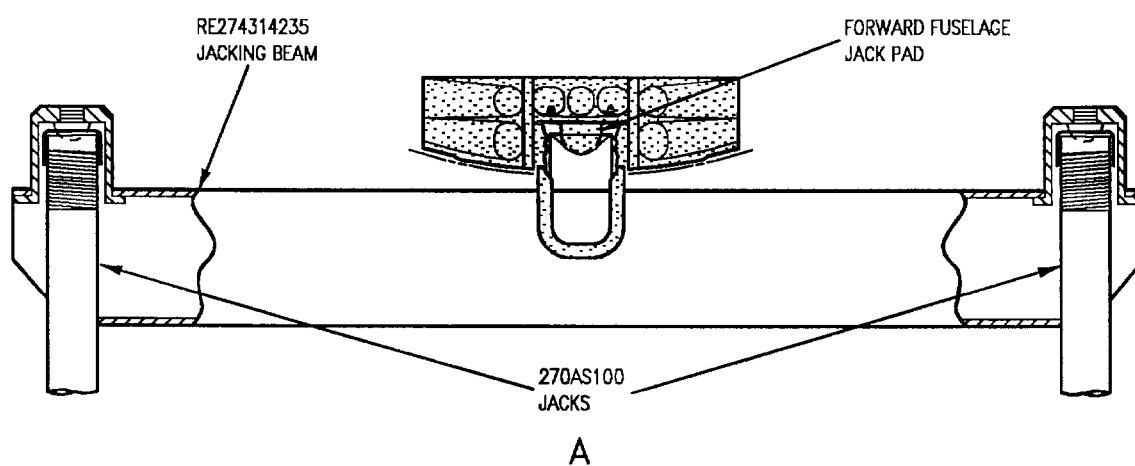
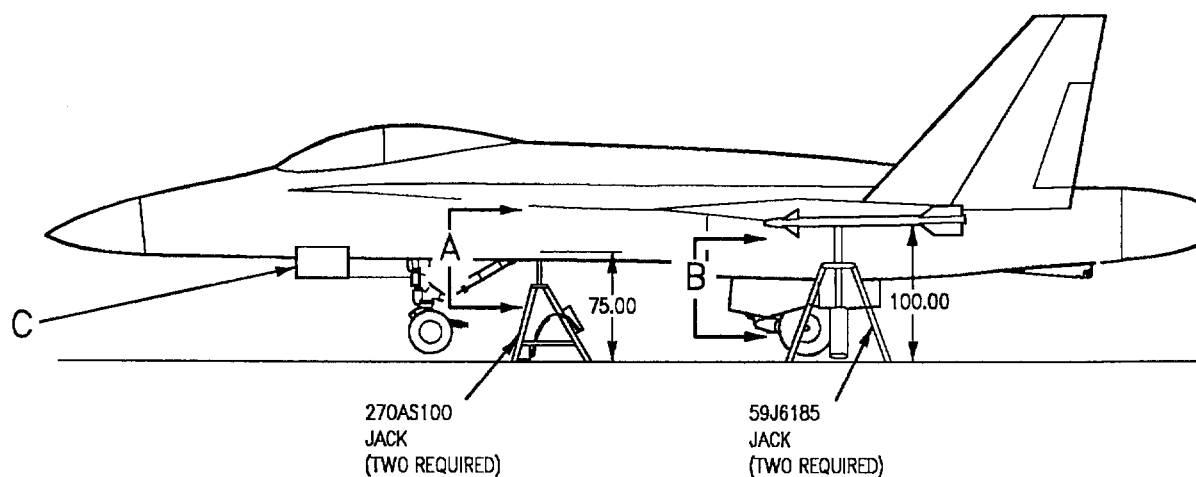


Figure 1. Aircraft Preparation (Sheet 1)

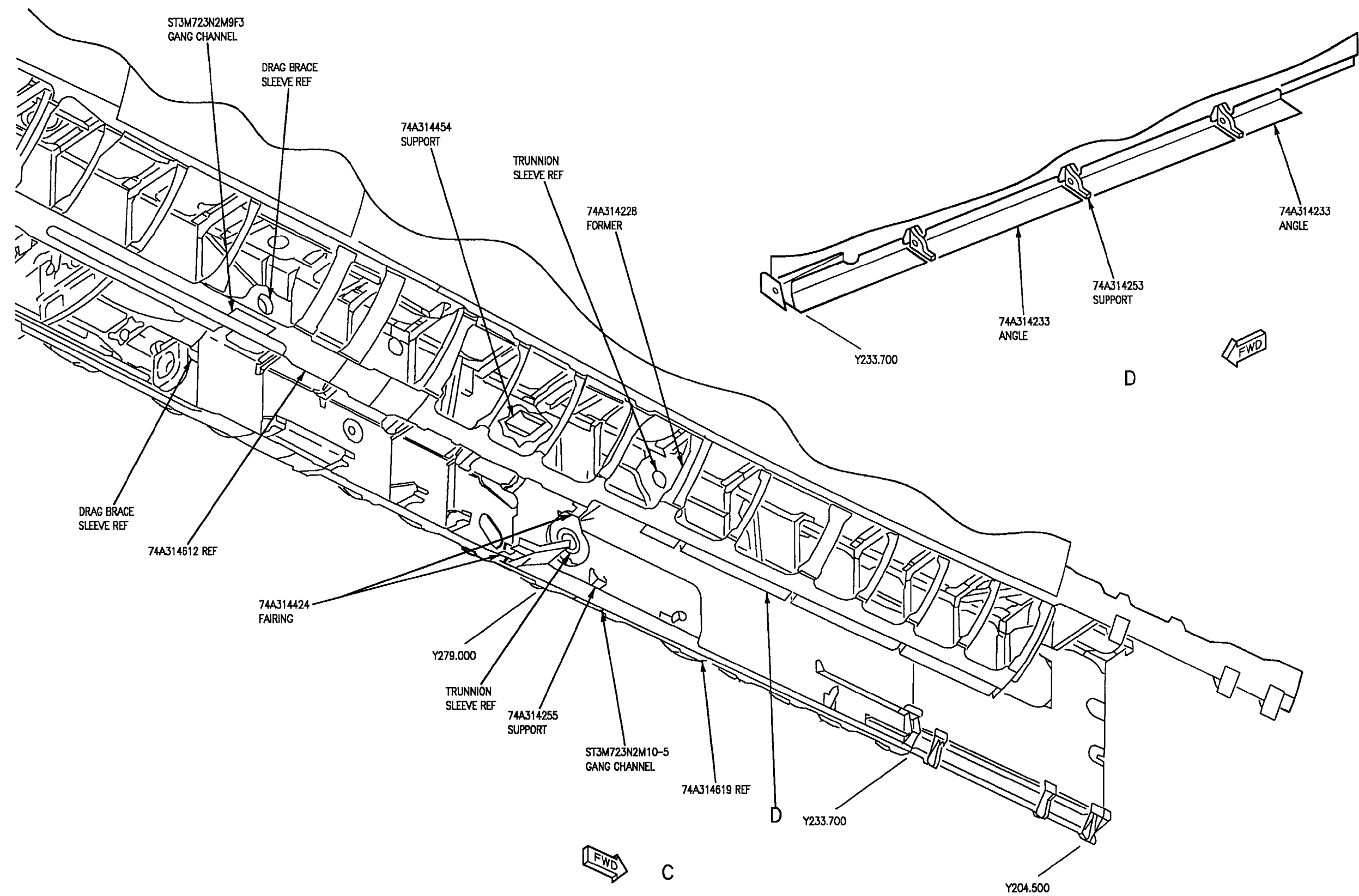


Figure 1.

Figure 1. Aircraft Preparation (Sheet 2)

Figure 1.

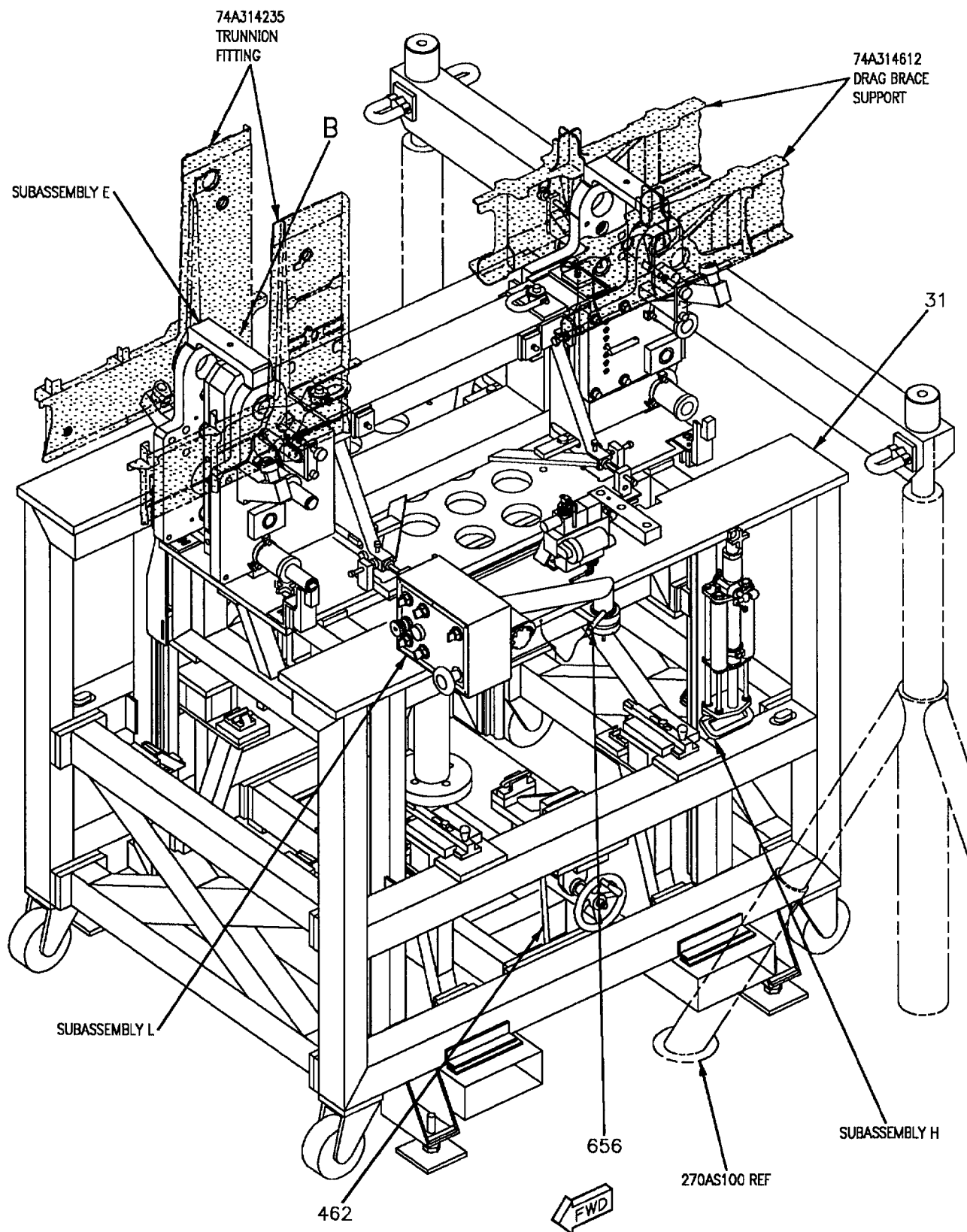


Figure 2. Locating Fixture Preparation (Sheet 1)

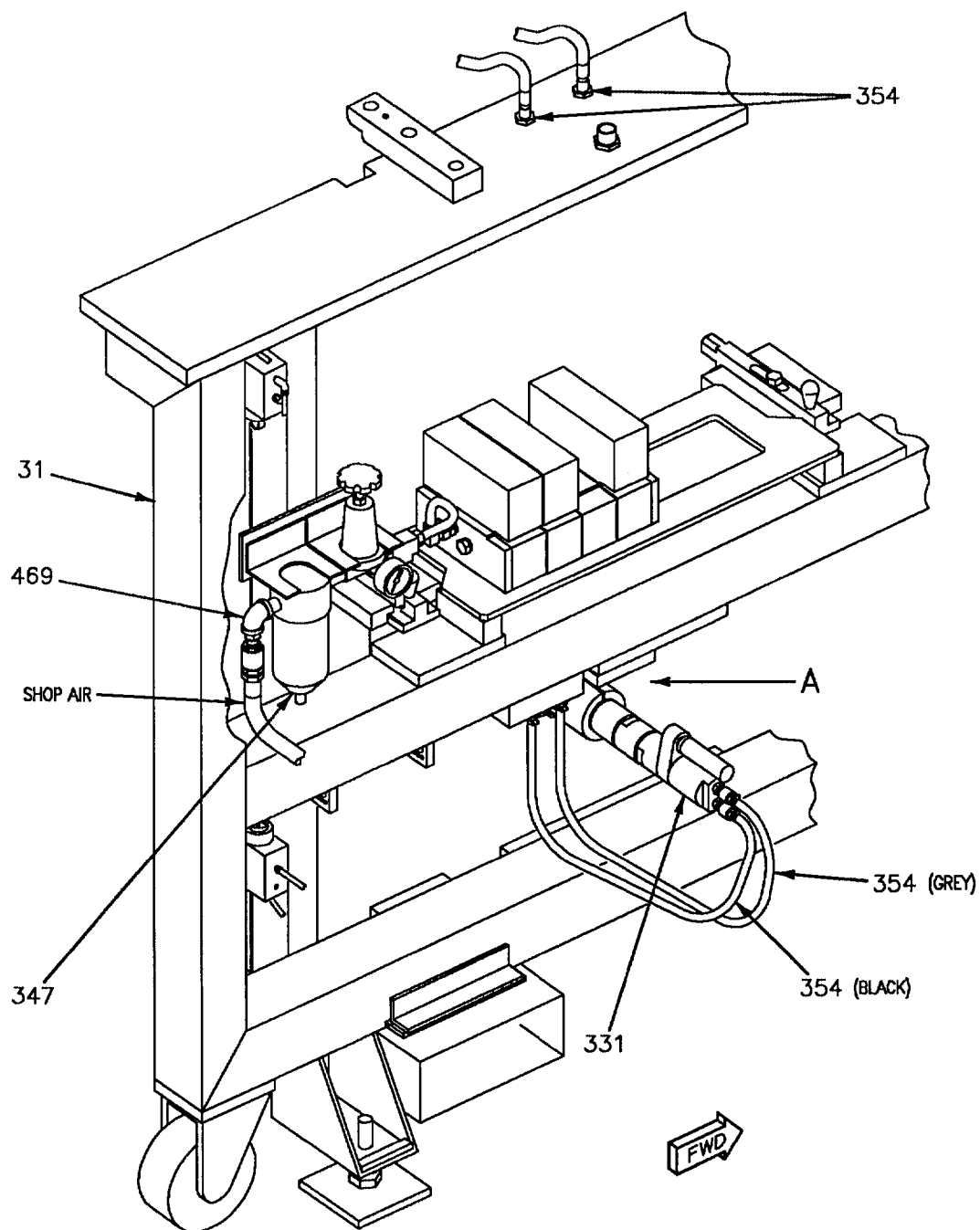


Figure 2. Locating Fixture Preparation (Sheet 2)

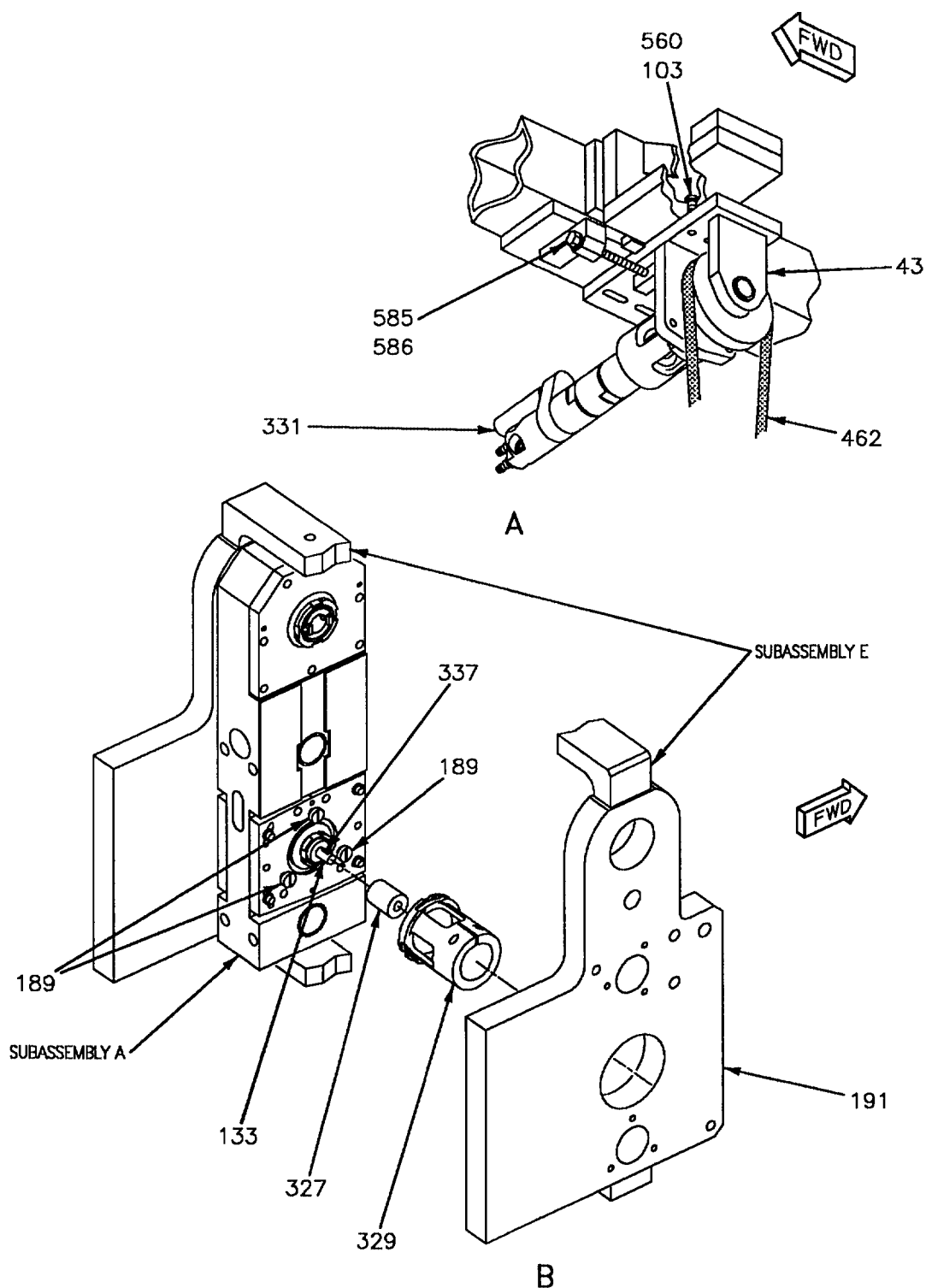


Figure 2. Locating Fixture Preparation (Sheet 3)

Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing sleeves.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
31	Fixture	Used to support Subassembly E.
43	Bracket	Holds motor (detail 331) on the lower right hand side of the tool frame when not using on Subassembly E.
103	Bolt	Used to adjust belt tension on bracket (detail 43).
133	Shaft	Used to secure coupling (detail 329) onto Subassembly A.
189	Lock Screws	Used to secure coupling (detail 329) to Subassembly A.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
327	Coupling	Used to secure motor (detail 331) to Subassembly A.
329	Coupling	Used to contact Subassembly A to motor (detail 331).
331	Motor	Used to operate the system.
337	Key	Used to align coupling (detail 327) onto shaft (detail 133).
347	Pressure gage	Used to gage amount of shop air entering fixture system.
354	Hoses	Used to provide air pressure to motor (detail 331).
462	Belts	Used to operate the swivel, which is part of the lift platform (detail 550)
469	Elbow	Fitting used to connect shop air hose to.
550	Lift platform	Used to lift Subassembly E up or down.
560	Washer	Used with bolt (detail 103) to hold tension on bracket (detail 43).
585	Nut	Used to adjust tension on belt (detail 462).
586	Shaft	Used to connect nut (detail 586) and bracket (detail 43).
656	L-pin	Used to secure Subassembly L arm when not in use

Figure 2. Locating Fixture Preparation (Sheet 4)

5. LOCATING FIXTURE INSTALLATION. Figure 3.

a. Roll locating fixture (detail 31) under nose landing gear bay and position it between tripod jacks 270AS100.

b. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift platform (detail 550) up until it supports plate (detail 240), detail A.

NOTE

Use hand crank (detail 455) if needed to take the pressure off of slide (detail 195).

c. Loosen bolt (detail 643) from slide (detail 195). Using knob (detail 418) retract slide (detail 195) outboard until pin clears lift platform (detail 550), typical four places. Tighten bolt (detail 643) down, detail B.

d. Remove L-pin (detail 656) from Subassembly L arm.

e. On Subassembly L, turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) up into nose landing gear bay so that holes in the trunnion and drag brace fitting line up. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, detail A.

f. Install bushing (detail 262) into plate (detail 192) and pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left side drag brace area, detail D.

g. Install bushing (detail 262) into plate (detail 193) right side, detail D.

h. Install bushing (detail 263) and pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left side trunnion support area, detail C.

i. Install bushing (detail 263) into plate (detail 191) right side, detail C.

j. Check for correct X plane location at 74A314235 trunnion support area by inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support right hand side and between pin bushing (detail 272) and 74A314235 trunnion support on left side, detail C.

k. Check for correct X plane location at 74A314612 drag brace support area by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support right side and between pin bushing (detail 272) and 74A314612 drag brace support on the left side, detail D.

l. Lower leveling feet (detail 31W) four places so casters clear the floor.

m. Level locating fixture (detail 31) by raising or lowering leveling feet (detail 31W) four places until level. Check levels located on locating fixture (detail 31) on all four corners.

n. On Subassembly L, turn LIFT knob switch to DRIVE position and turn LIFT knob switch to DOWN position. Lower lift platform (detail 550) to it's lowest position, detail A.

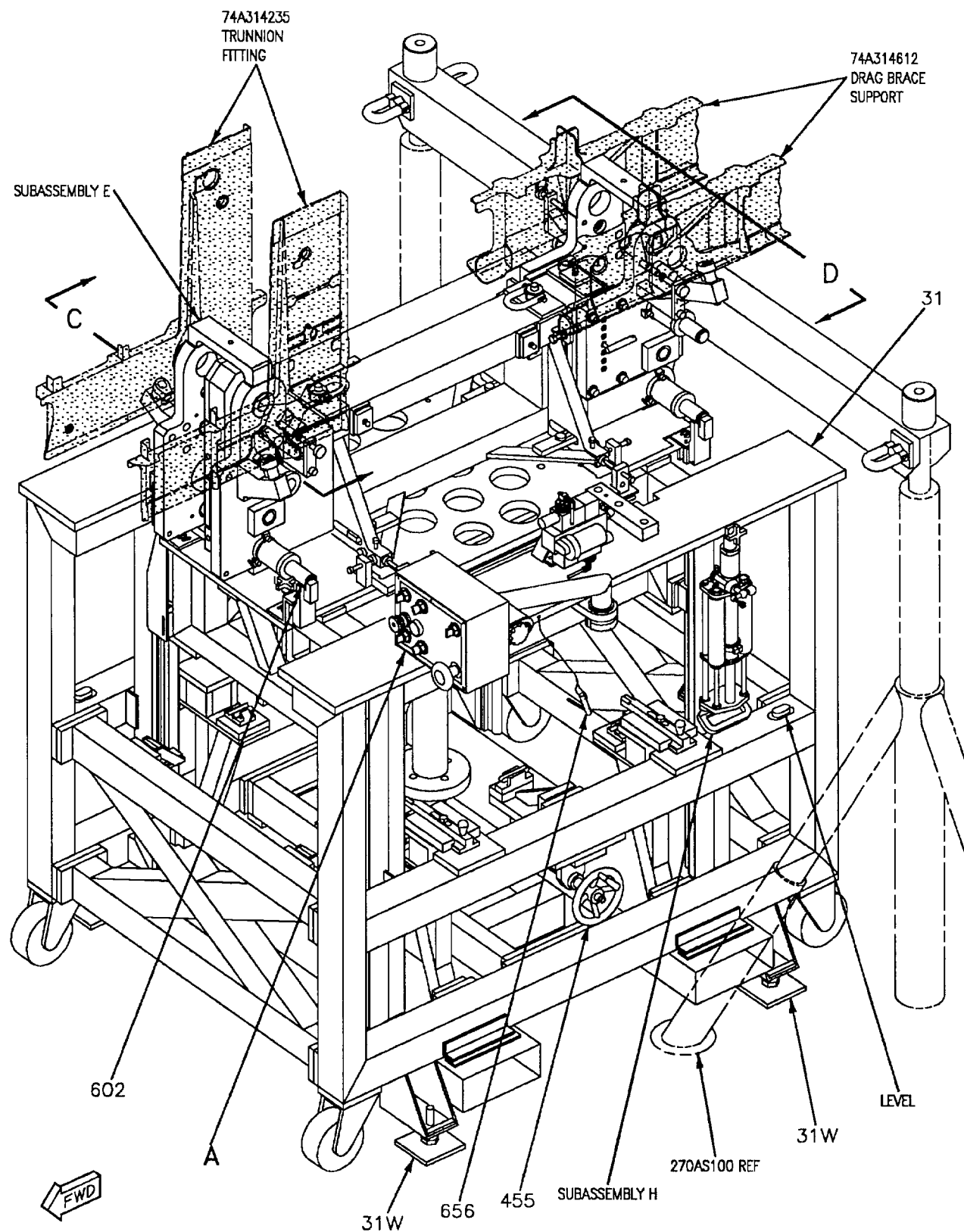


Figure 3. Locating Fixture Installation (Sheet 1)

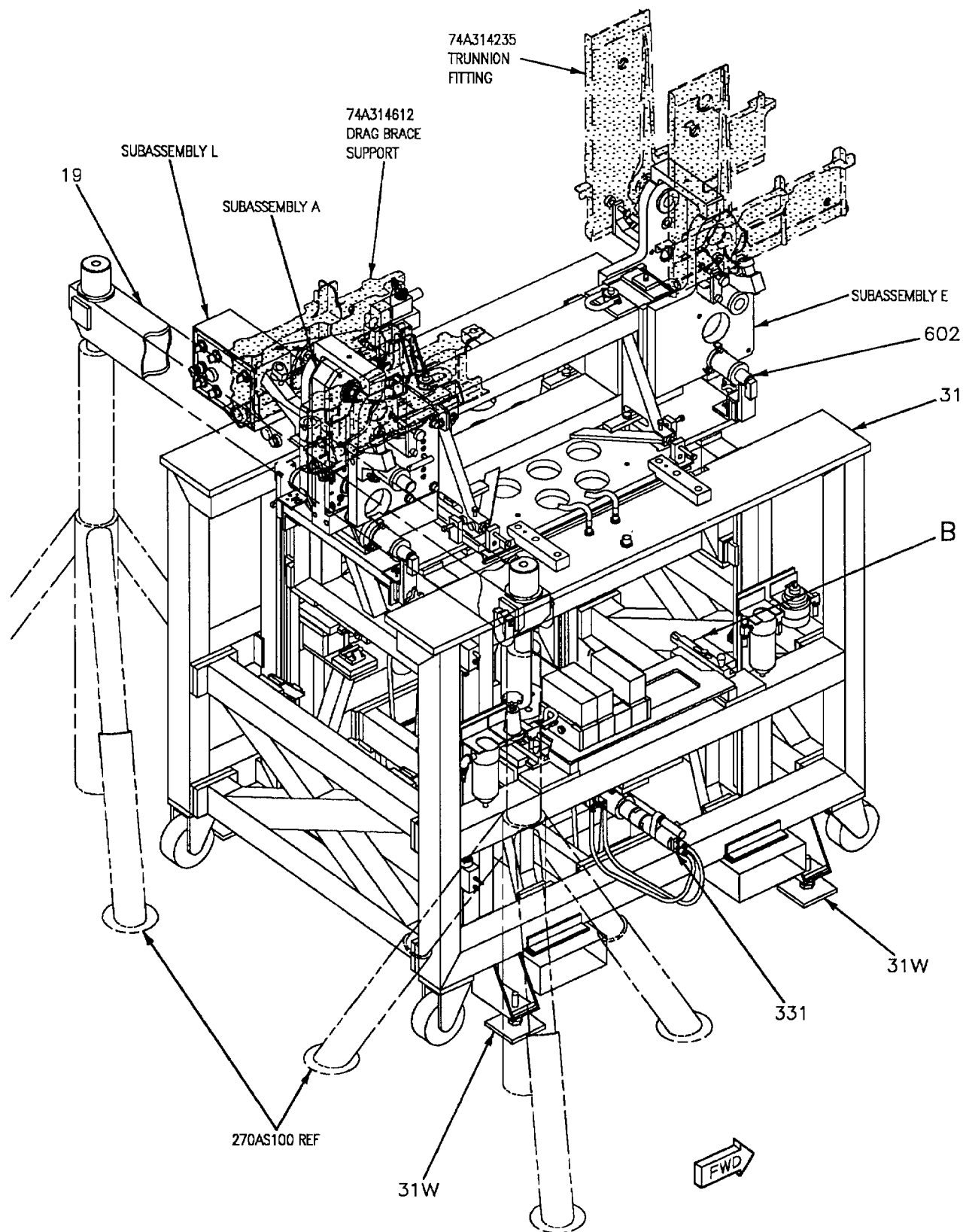


Figure 3. Locating Fixture Installation (Sheet 2)

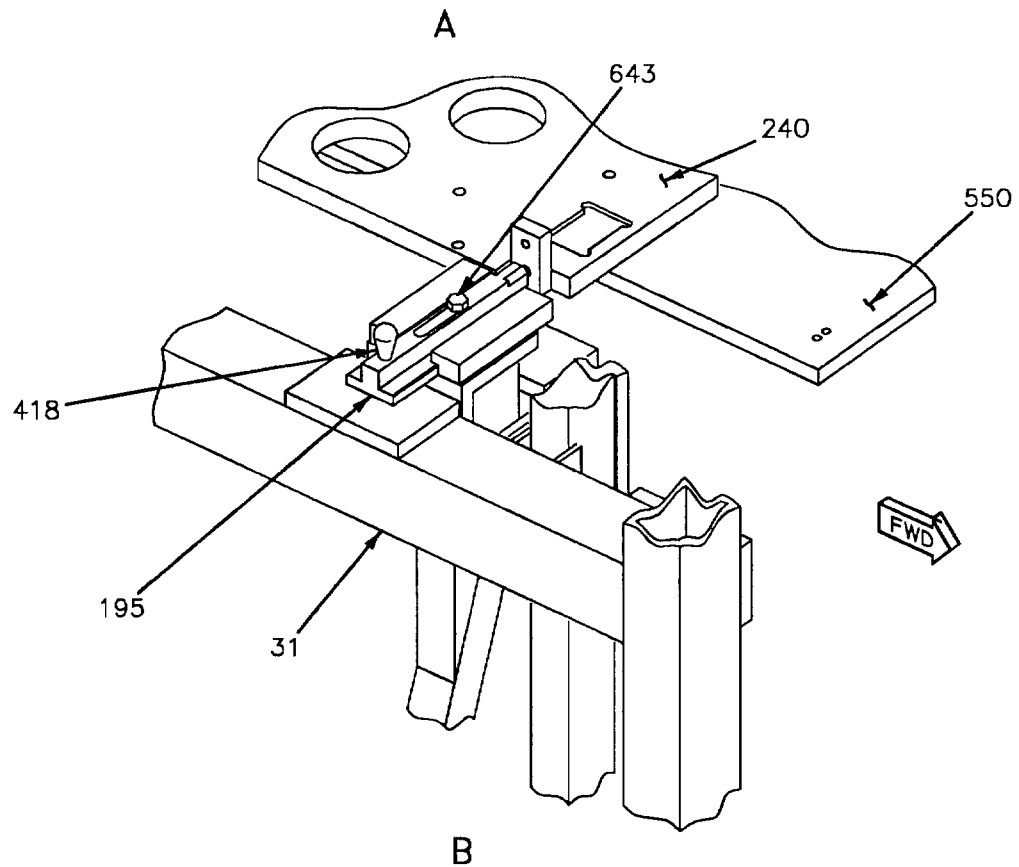
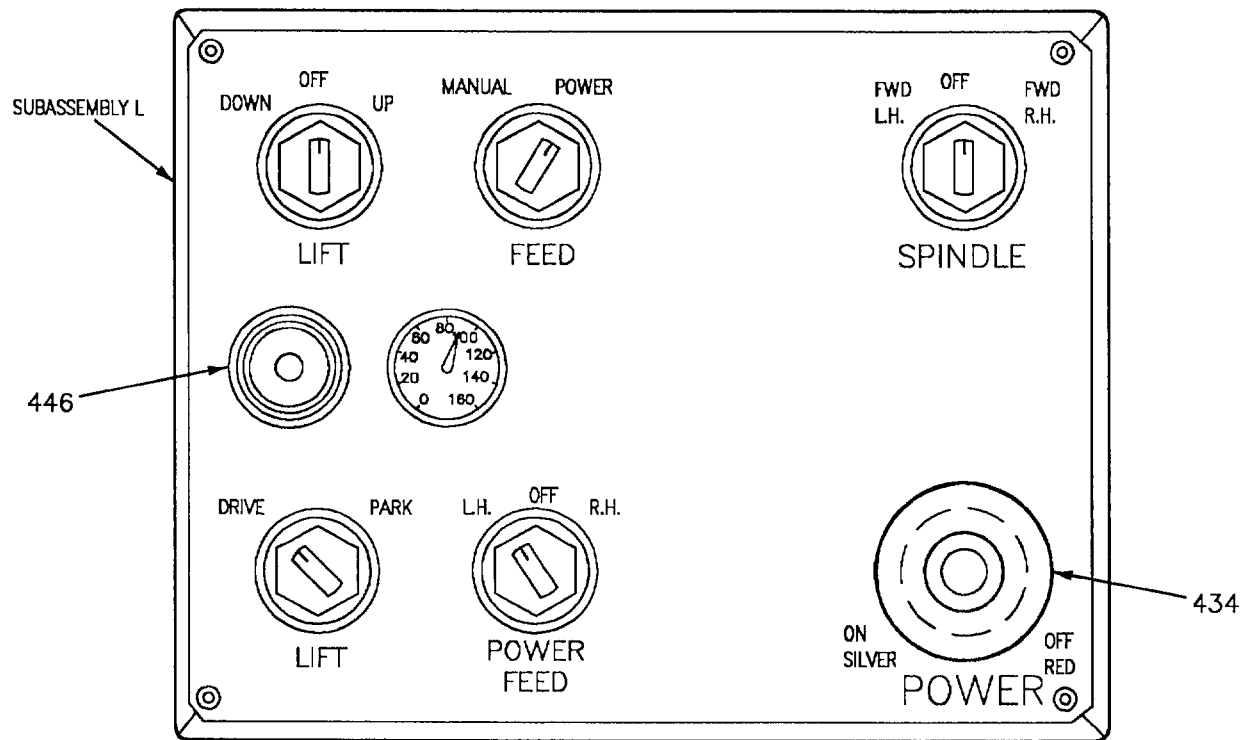


Figure 3. Locating Fixture Installation (Sheet 3)

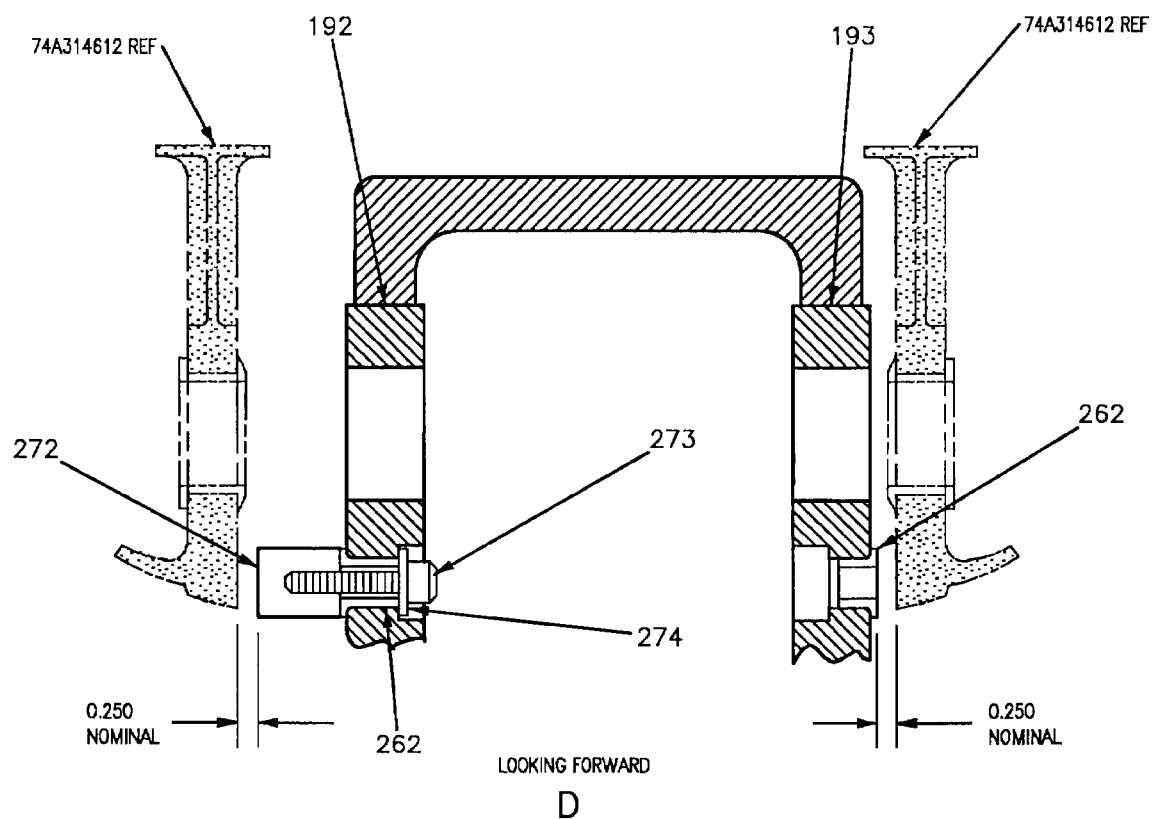
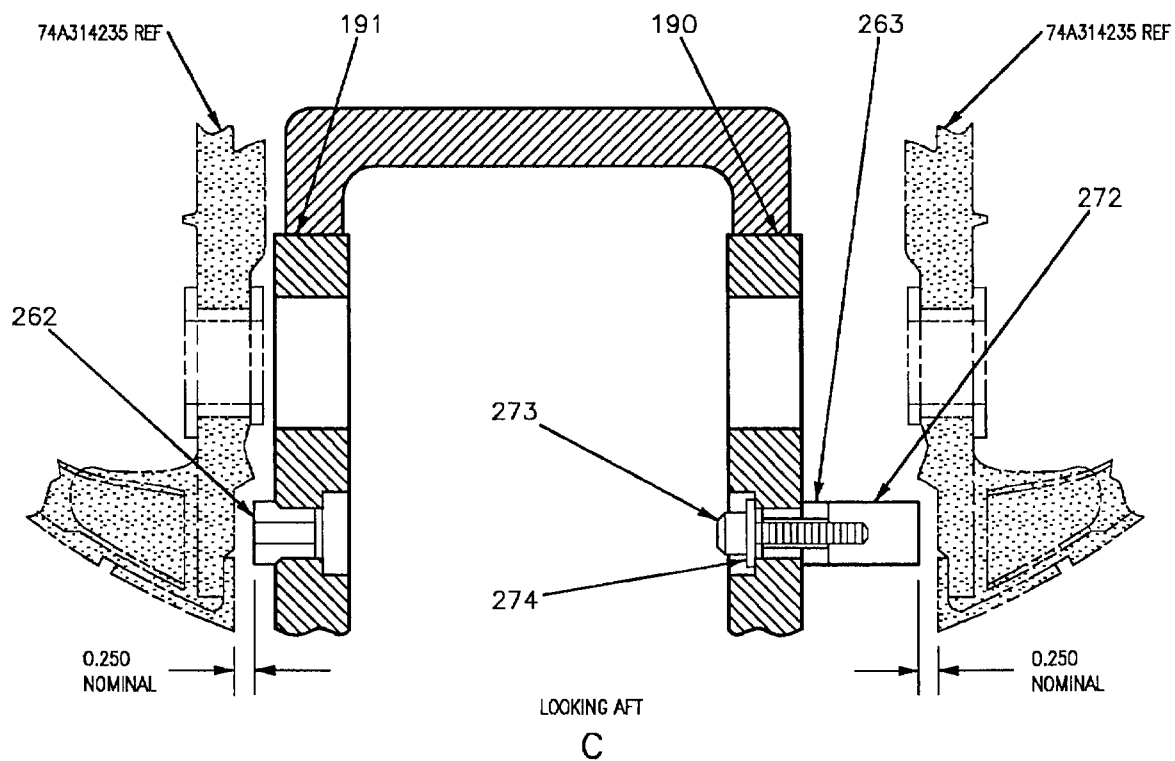


Figure 3. Locating Fixture Installation (Sheet 4)

Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing sleeves.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
19	Jacking beam	Used to support the aircraft and secure Subassembly E using (detail 98, 199 and 200).
31	Fixture	Used to support Subassembly E and other components.
31W	Leveling feet	Used to level the fixture (detail 31)
190	Plate	Part of Subassembly E, used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.
195	Slide	Used to secure plate (detail 240) in solid position.
198	Screws	Attach (detail 19) to Subassembly E with (detail 199 and 200).
199	Swivel Washers	Used on forward and aft side of (detail 19) with (detail 198 and 200) to attach (detail 19) to Subassembly E.
200	Nuts	Used on forward side of (detail 19) with (detail 198) to attach (detail 19) to Subassembly E.
240	Plate	Used to support and lift Subassembly E.
262	Bushings	Used to check for correct X plane location in left and right hand drag brace area.
263	Bushings	Used to check for correct X plane location in left and right hand trunnion area.
272	Pin Bushings	Used to check for correct X plane location in left hand trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).

Figure 3. Locating Fixture Installation (Sheet 5)

Detail No.	Name	Function
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
331	Motor	Used to operate the system.
418	Knob	Used to disengage slide (detail 195) from plate (detail 240).
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
455	Hand Crank	Used to manual move (detail 550) up or down.
550	Lift Platform	Used to lift Subassembly E up or down.
602	Shaft	Used to support Subassembly E when not attached to aircraft.
643	Bolt	Used to secure slide (detail 195) to fixture (detail 31).
656	L-pin	Used to secure Subassembly L arm when not in use.

Figure 3. Locating Fixture Installation (Sheet 6)

6. BEARING SLEEVE REMOVAL. Figure 4.

7. **TRUNNION.** Hydraulic Pump Assembly, Pneumatic, 74D110323-1001, is used to energize ENERPAC RCH #202 cylinder during bearing sleeve removal per A1-F18AC-SRM-200, WP004 18.

NOTE

Left and right procedure the same.



Dry Cleaning Solvent, P-D-680, Type II

25

a. Clean bearing sleeve and supports with clean cheese cloth moistened with dry cleaning fluid.

b. Wipe and dry with clean dry cheese cloth.

c. Inspect 74A314395 trunnion bearing sleeves located in 74A314235 trunnion support.

d. If bearing sleeve is cracked, broken, or corrosion excess, remove it using RE374314235, detail A.

e. Attach support (detail 12) to Subassembly E with cap screw (detail 668) and washer (detail 669), detail A.

f. Install sleeve fitting (detail 122) into trunnion bearing sleeve, 74A314395.

g. Attach support fitting (detail 124) to ENERPAC RCH #202 cylinder with two cap screws (detail 170). Insert threaded stud (detail 120), washer (detail 144) and nut (detail 143) through ENERPAC RCH #202 cylinder. Place it on support (detail 12) detail A.

h. On Subassembly L, push silver button (detail 434) in to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until threaded stud (detail 120) lines up with hole in sleeve fitting (detail 122). Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, detail C.

i. Insert threaded stud (detail 120) with washer (detail 144), nut (detail 143) and ENERPAC RCH #202 cylinder through sleeve fitting (detail 122) into cap (detail 125), detail A.

j. Use cap (detail 125) to take up slack between trunnion support and support fitting (detail 124), detail A.

k. Energize cylinder to remove bearing sleeve from trunnion fitting, 74A314236, detail A.

l. Unscrew cap (detail 125) from threaded stud (detail 120), detail A.

m. Slide threaded stud (detail 142) with washer (detail 144) and nut (detail 143) from sleeve fitting (detail 122).

n. On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to its lowest position, detail C.

o. Remove sleeve fitting (detail 122) from trunnion bearing sleeve, 74A314395, detail A.

p. Remove threaded stud (detail 120), washer (detail 144) and nut (detail 143) from ENERPAC RCH #202 cylinder.

q. Remove ENERPAC RCH #202 cylinder from support (detail 12), detail A.

r. Remove cap screw (detail 668) and washer (detail 669), holding support (detail 12) to Subassembly E.

s. Inspect 74A314235, trunnion support fitting located on aircraft.

(1) If replacing worn, broken, cracked, or corrosion excess bearing sleeve with oversize bearing sleeve, do oversize sleeve installation, this WP.

(2) If trunnion support fitting is cracked, do trunnion support fitting 74A314235, replacement WP073 00.

(3) If no oversize bearing sleeve is needed, do trunnion bearing sleeve installation, nominal size, this WP.

8. **DRAG BRACE.** Hydraulic Pump Assembly, Pneumatic, 74D110323-1001, is used to energize ENERPAC RCH #202 cylinder during bearing sleeve removal per (A1-F18AC-SRM-200, WP004 18).

NOTE

Left and right procedure the same.



Dry Cleaning Solvent, P-D-680, Type II

25

a. Clean bearing sleeve and supports with clean cheese cloth moistened with dry cleaning solvent.

b. Wipe and dry with clean dry cheese cloth.

c. Inspect 74A314663 drag brace bearing sleeves located in 74A314612 drag brace support.

d. If bearing sleeve is cracked, broken, or corrosion excess, remove it using RE374314235, detail B.

e. Attach support (detail 12) to Subassembly E with cap screw (detail 668) and washer (detail 669), detail B.

f. Attach support fitting (detail 146) to ENERPAC RCH #202 cylinder with two cap screws (detail 170). Insert threaded stud (detail 129), washer (detail 144) and nut (detail 143) through ENERPAC RCH #202 cylinder. Place it on support (detail 12), detail B.

g. On Subassembly L, push silver button (detail 434) in to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until threaded stud (detail 129) lines up with hole in bearing sleeve 74A314663. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, detail C.

h. Insert threaded stud (detail 129) with washer (detail 144), nut (detail 143) and ENERPAC RCH

#202 cylinder through bearing sleeve 74A314663 into cap (detail 121), detail B.

i. Use cap (detail 121) to take up slack between drag brace support fitting and support fitting (detail 146), detail B.

j. Energize cylinder to remove bearing sleeve from drag brace fitting 74A314612, detail B.

k. Unscrew cap (detail 121) from threaded stud (detail 129), detail B.

l. Slide threaded stud (detail 129) with washer (detail 144) and nut (detail 143) from drag brace support fitting, 74A314612.

m. On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, detail C.

n. Remove threaded stud (detail 129), washer (detail 144), nut (detail 143) from ENERPAC RCH #202 cylinder.

o. Remove ENERPAC RCH #202 cylinder from support (detail 12), detail B.

p. Remove cap screw (detail 668) and washer (detail 669), holding support (detail 12) from Subassembly E.

q. Inspect 74A314612, drag brace support fitting located on aircraft.

(1) If replacing worn, broken, cracked, or corrosion excess bearing sleeve with oversize bearing sleeve, do oversize sleeve installation, this WP.

(2) If drag brace support fitting is cracked, do drag brace support fitting 74A314612, replacement, WP073 00.

(3) If no oversize bearing sleeve is needed, do drag brace bearing installation, nominal size, this WP.

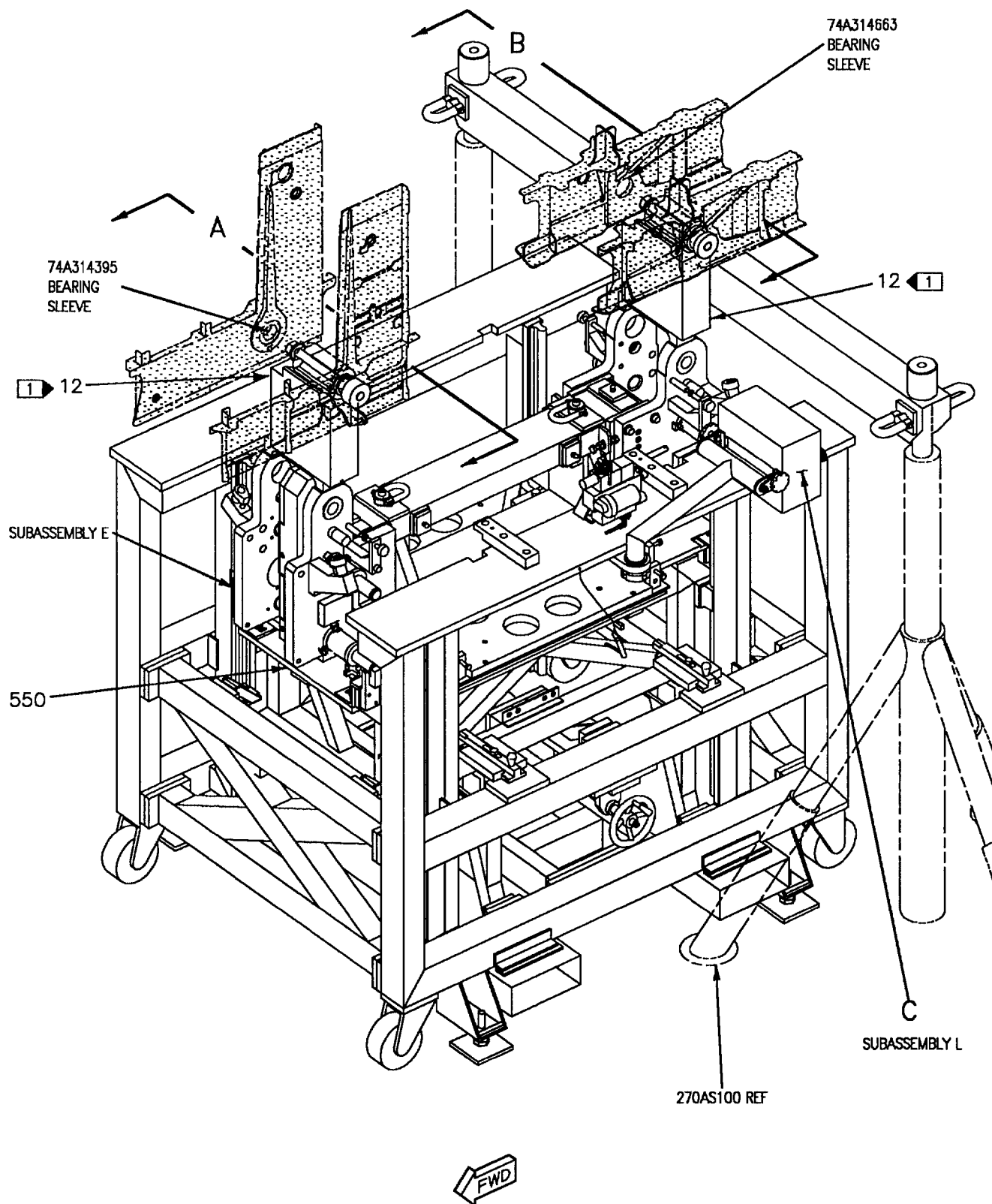


Figure 4. Bearing Sleeve Removal (Sheet 1)

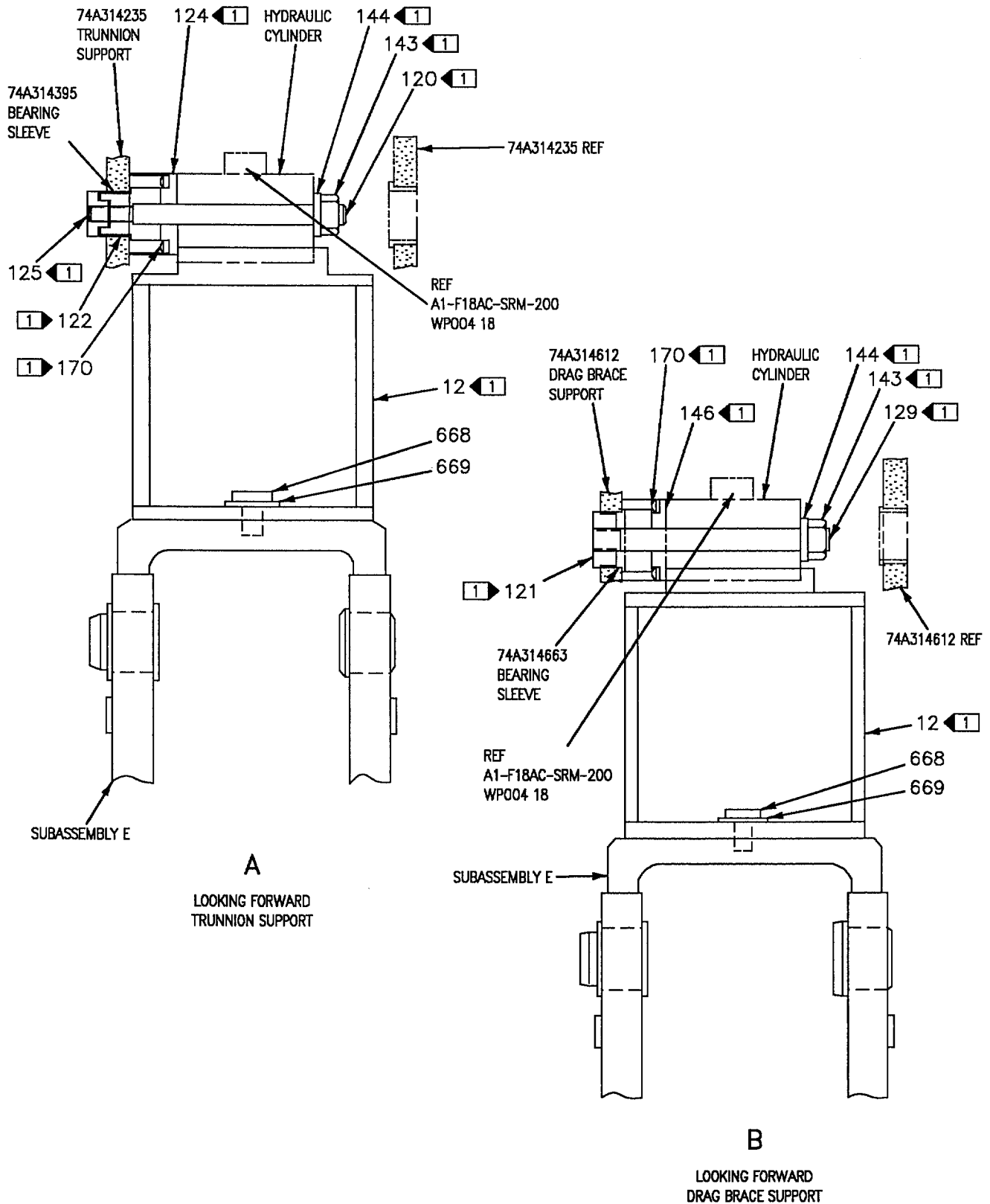
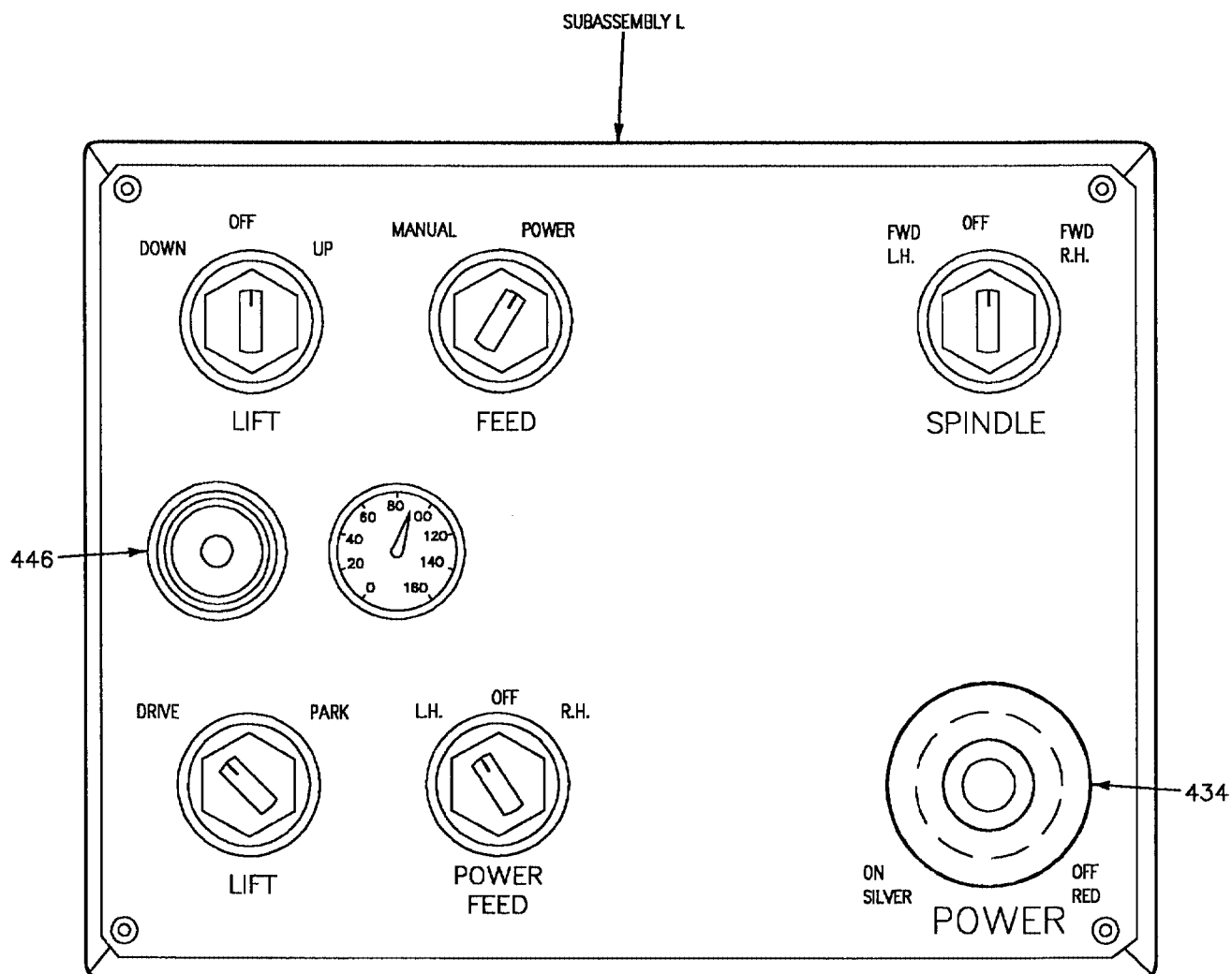


Figure 4. Bearing Sleeve Removal (Sheet 2)



C

LEGEND

- 1 ► DETAILS FLAGGED ARE PART OF RE374314235
N.L.G. TRUNNION DRAG BRACE
SUPPORTS TOOL SET.

Figure 4. Bearing Sleeve Removal (Sheet 3)













Detail No.	Name	Function
Subassembly E	Locating Assembly	Used to support (detail 12) by attaching with cap screw.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
ENERPAC RCH #202	Cylinder (Depot furnished)	Used to remove bearing sleeve from trunnion and drag brace fittings.
12 	Support	Used to support and align ENERPAC RCH #202 cylinder.
120 	Threaded Stud	Used to secure sleeve fittings (detail 122 and 125) to trunnion fitting.
121 	Cap	Used to secure (detail 129) into drag brace support 74A314612 bearing sleeve.
122 	Sleeve Fitting	Secures sleeve fitting (detail 125) into 74A314235 trunnion fitting.
124 	Support Fitting	Used to secure ENERPAC RCH #202 cylinder onto trunnion fitting.
125 	Cap	Secures sleeve (detail 120) into trunnion fitting 74A314235, bearing sleeve.
129 	Threaded Stud	Used to secure sleeve fitting (detail 121) to drag brace fitting.
143 	Nut, Hex	Used to secure (detail 120, 129 and 144) on trunnion and drag brace fittings.
144 	Washer	Used with (detail 143) to take up slack on (detail 120 and 129).
146 	Support Fitting	Used to secure ENERPAC RCH #202 Cylinder on to drag brace fitting.
170 	Cap Screw	Used to attach (detail 124 and 146) to ENERPAC RCH #202 Cylinder.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
550	Lift Platform	Used to lift Subassembly E up or down.
668	Cap Screw	Used with (detail 669) to secure (detail 12) to the top of Subassembly E.
669	Washer	Used with (detail 668) to secure (detail 12) to the top of Subassembly E.
LEGEND		
 Details flagged are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set.		

Figure 4. Bearing Sleeve Removal (Sheet 4)

9. TRUNNION BEARING SLEEVE INSTALLATION, NOMINAL SIZE. Figure 5.

NOTE

Hydraulic Pump Assembly, Pneumatic, 74D110323-1001 is used to energize ENERPAC RCH #202 cylinder during bearing sleeve installation per (A1-F18AC-SRM-200, WP004 18).

Left and right procedures the same.

a. Attach support (detail 12) to Subassembly E with cap screw (detail 668) and washer (detail 669), detail A.



Sealing Compound, High Temperature, MIL-S-83430

26

b. Install sleeve fitting (detail 127) into bearing sleeve 74A314395. Apply fillet seal around peripheral of bearing sleeve. For application of fillet seal (A1-F18AC-SRM-200, WP011 00).

c. Insert threaded stud (detail 128) with washer (detail 144) and nut (detail 143) through ENERPAC RCH #202 cylinder. Place on support (detail 12), detail A.

d. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until threaded stud (detail 128) lines up with hole in trunnion fitting 74A314235. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, detail B.

e. Insert threaded stud (detail 128) with washer (detail 144) and nut (detail 143) and ENERPAC RCH #202 cylinder through sleeve fitting (detail 127), detail A.

f. Screw cap (detail 126) onto threaded stud (detail 128) from outboard side taking up the slack.

g. Energize cylinder to install bearing sleeve 74A314395-2001 into trunnion fitting, 74A314235.

h. Unscrew cap (detail 126) from threaded stud (detail 128).

i. Slide threaded stud (detail 128) with washer (detail 144) and nut (detail 143) from sleeve fitting (detail 127), detail A.

j. On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to its lowest position, detail B.

k. Remove threaded stud (detail 128), washer (detail 144) and nut (detail 143) from ENERPAC RCH #202 cylinder.

l. Remove ENERPAC RCH #202 cylinder from support (detail 12), detail A.

m. Remove cap screw (detail 668) and washer (detail 669), holding support (detail 12) to Subassembly E. Remove support (detail 12) from Subassembly E.



Dry Cleaning Solvent, P-D-680, Type II

25

n. Clean bearing sleeves and supports with clean cheesecloth moistened with dry cleaning solvent.

o. Wipe area dry with clean dry cheesecloth.

p. Measure and record span between left and right trunnion bearing sleeve heads using a bar micrometer (detail 237) of RE374314235-1.

q. Dimension taken to be used for setting spotfac-er in operation. Span between bearing sleeve heads should be 13.215 ± 0.015 after machining operations.

r. Do trunnion bearing sleeve reaming procedure, this WP.

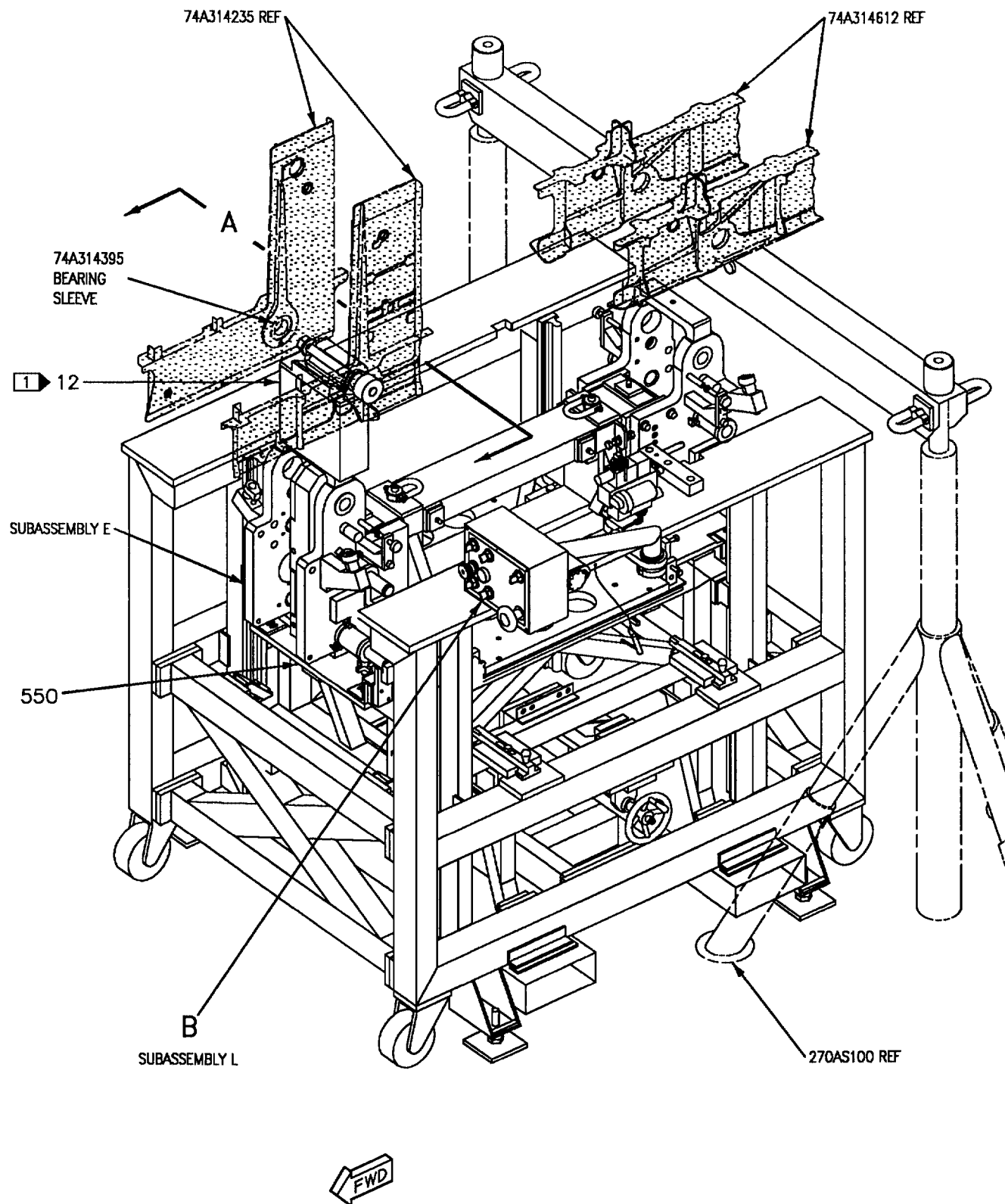


Figure 5. Trunnion Bearing Sleeve Installation, Nominal Size (Sheet 1)

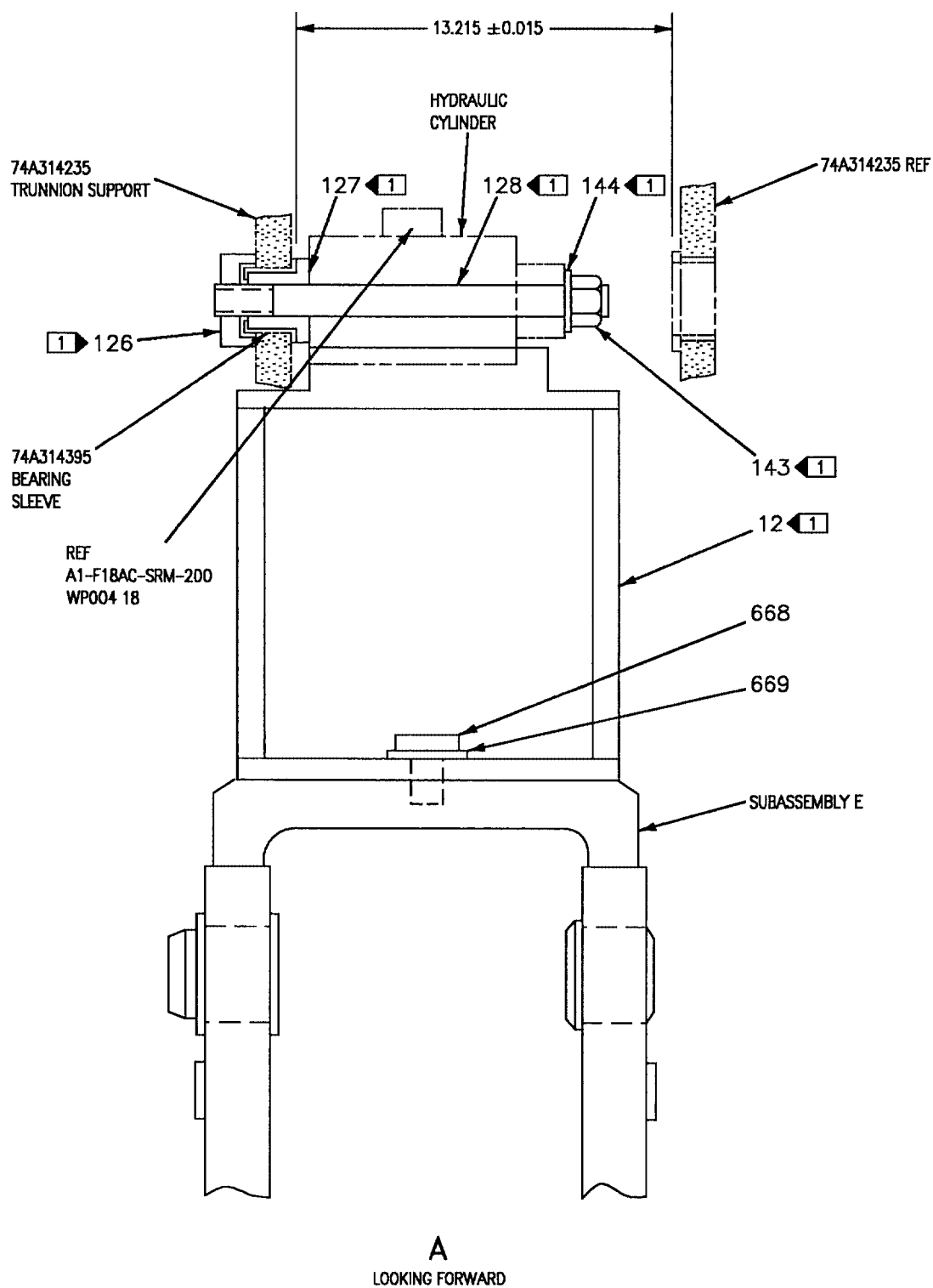
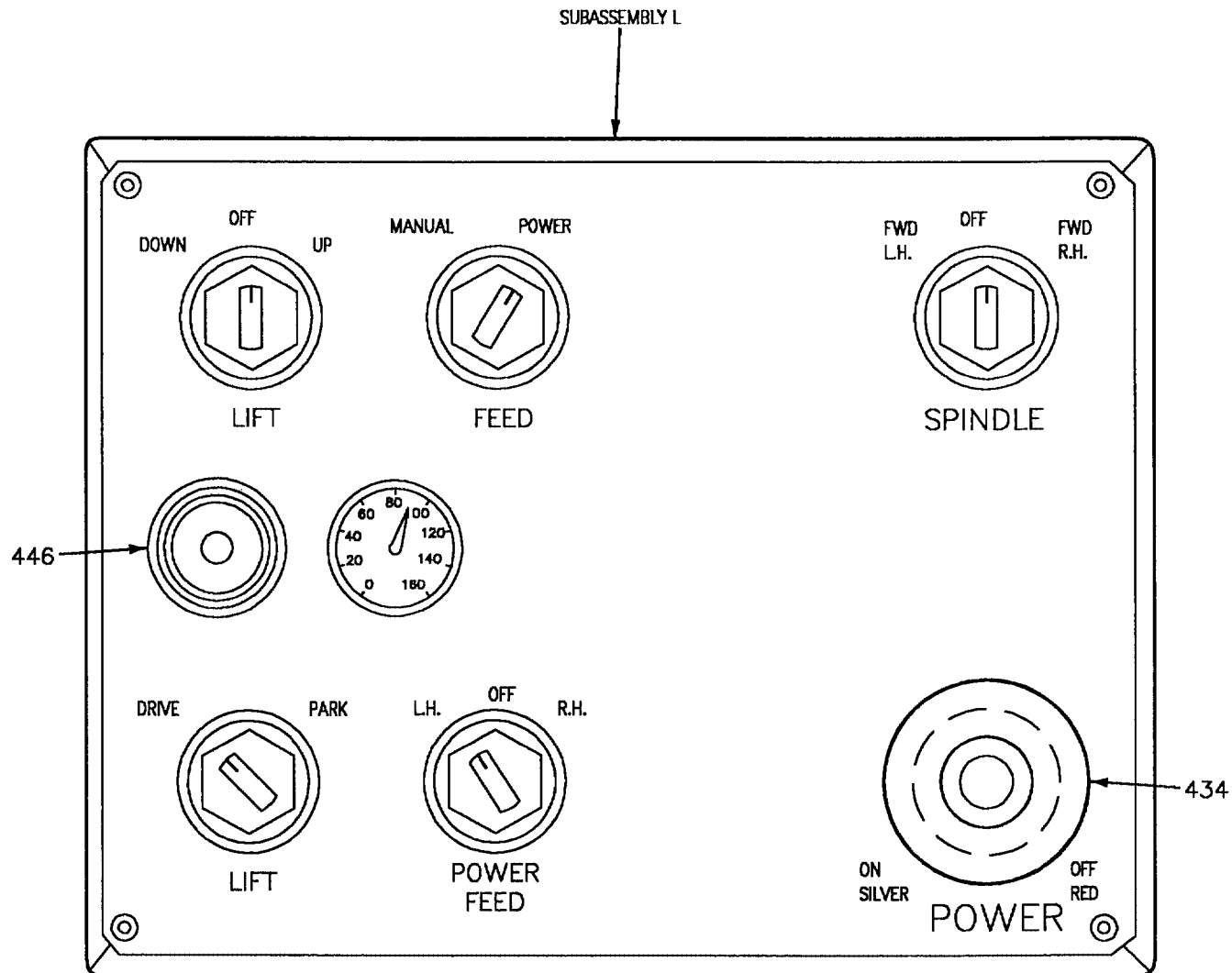


Figure 5. Trunnion Bearing Sleeve Installation, Nominal Size (Sheet 2)



B

LEGEND

- 1 DETAILS FLAGGED ARE PART OF RE374314235
N.L.G. TRUNNION DRAG BRACE
SUPPORTS TOOL SET.

Figure 5. Trunnion Bearing Sleeve Installation, Nominal Size (Sheet 3)








Detail No.	Name	Function
Subassembly E	Locating Assembly	Used to support (detail 12) by attaching with cap screw.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
ENERPAC RCH #202	Cylinder (Depot furnished)	Used to operate (detail 128) by pushing it outboard.
12 	Support	Used to support and align ENERPAC RCH #202 Cylinder.
126 	Cap	Used to secure (detail 128) into trunnion fitting 74A314235, bearing sleeve.
127 	Sleeve Fitting	Used to align (detail 128) through 74A314395 bearing sleeve.
128 	Threaded Stud	Used to secure sleeve fitting (detail 127) to (detail 126).
143 	Nut, Hex	Used to secure (detail 128) and (detail 144) onto ENERPAC RCH #202 Cylinder
144 	Washer	Used with (detail 143) to take up slack on (detail 128).
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
550	Lift Platform	Used to lift Subassembly E up or down.
668	Cap Crew	Used with (detail 669) to secure (detail 12) to the top of Subassembly E.
669	Washer	Used with (detail 668) to secure (detail 12) to the top of Subassembly E.
LEGEND		
 Details flagged are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set.		

Figure 5. Trunnion Bearing Sleeve Installation, Nominal Size (Sheet 4)

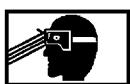
10. DRAG BRACE SLEEVE INSTALLATION, NOMINAL SIZE. Figure 6.

NOTE

Hydraulic Pump Assembly, Pneumatic, 74D110323-1001 is used to energize ENERPAC RCH #202 cylinder during bearing sleeve installation per (A1-F18AC-SRM-200, WP004 18).

Left and right procedures the same.

a. Attach support (detail 12) to Subassembly E with cap screw (detail 668) and washer (detail 669), detail A.



Sealing Compound, High Temperature, MIL-S-83430

26

b. Install sleeve fitting (detail 130) into bearings sleeve 74A314663. Apply fillet seal around peripheral of bearing sleeve. For application of fillet seal (A1-F18AC-SRM-200, WP011 00).

c. Insert threaded stud (detail 142) with washer (detail 144) and nut (detail 143) through ENERPAC RCH #202 cylinder. Place it on support (detail 12), detail A.

d. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until threaded stud (detail 142) lines up with hole in sleeve fitting (detail 130). Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, detail B.

e. Insert sleeve fitting (detail 222) into bearing sleeve through hole in drag brace fitting 74A314612. Insert threaded stud (detail 142) with washer (detail 142), nut (detail 143) and ENERPAC RCH #202 cylinder into sleeve fittings (detail 130 and 222), detail A.

f. Screw cap (detail 131) onto threaded stud (detail 142) from outboard side taking up the slack.

g. Energize cylinder to install bearing sleeve 74A314663-2003 into drag brace fitting, 74A314612.

h. Unscrew cap (detail 131) from threaded stud (detail 142). Remove sleeve fitting (detail 222).

i. Slide threaded stud (detail 142) with washer (detail 144) and nut (detail 143) from sleeve fitting (detail 130).

j. On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, detail B.

k. Remove threaded stud (detail 142), washer (detail 144) and nut (detail 143) from ENERPAC RCH #202 cylinder.

l. Remove ENERPAC RCH #202 cylinder from support (detail 12), detail A.

m. Remove cap screw (detail 668) and washer (detail 669), holding support (detail 12) from Subassembly E.



Dry Cleaning Solvent, P-D-680, Type II

25

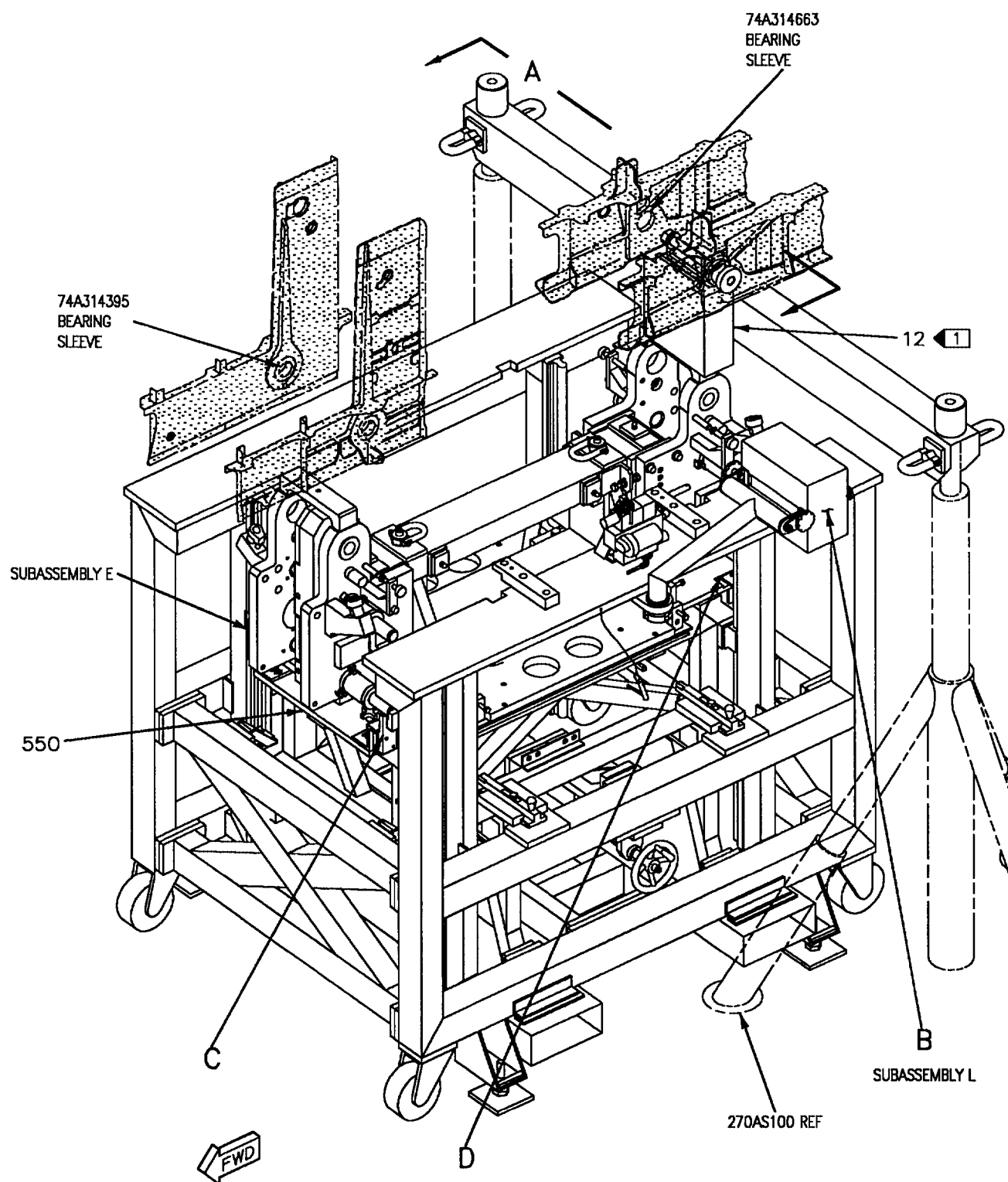
n. Clean bearing sleeves and supports with clean cheesecloth moistened with dry cleaning solvent.

o. Wipe area dry with clean dry cheesecloth.

p. Measure and record span between left and right drag brace bearing sleeve heads using a bar micrometer (detail 237) of RE374314235-1.

q. Dimension taken to be used for setting spotfac-er in operation. Span between bearing sleeve heads should be 12.740 ± 0.015 after machining operations.

r. Do drag brace bearing sleeve reaming procedure, this WP.



18AC-SRM-221-(120-1)02-CAT1

Figure 6. Drag Brace Bearing Sleeve Installation, Nominal Size (Sheet 1)

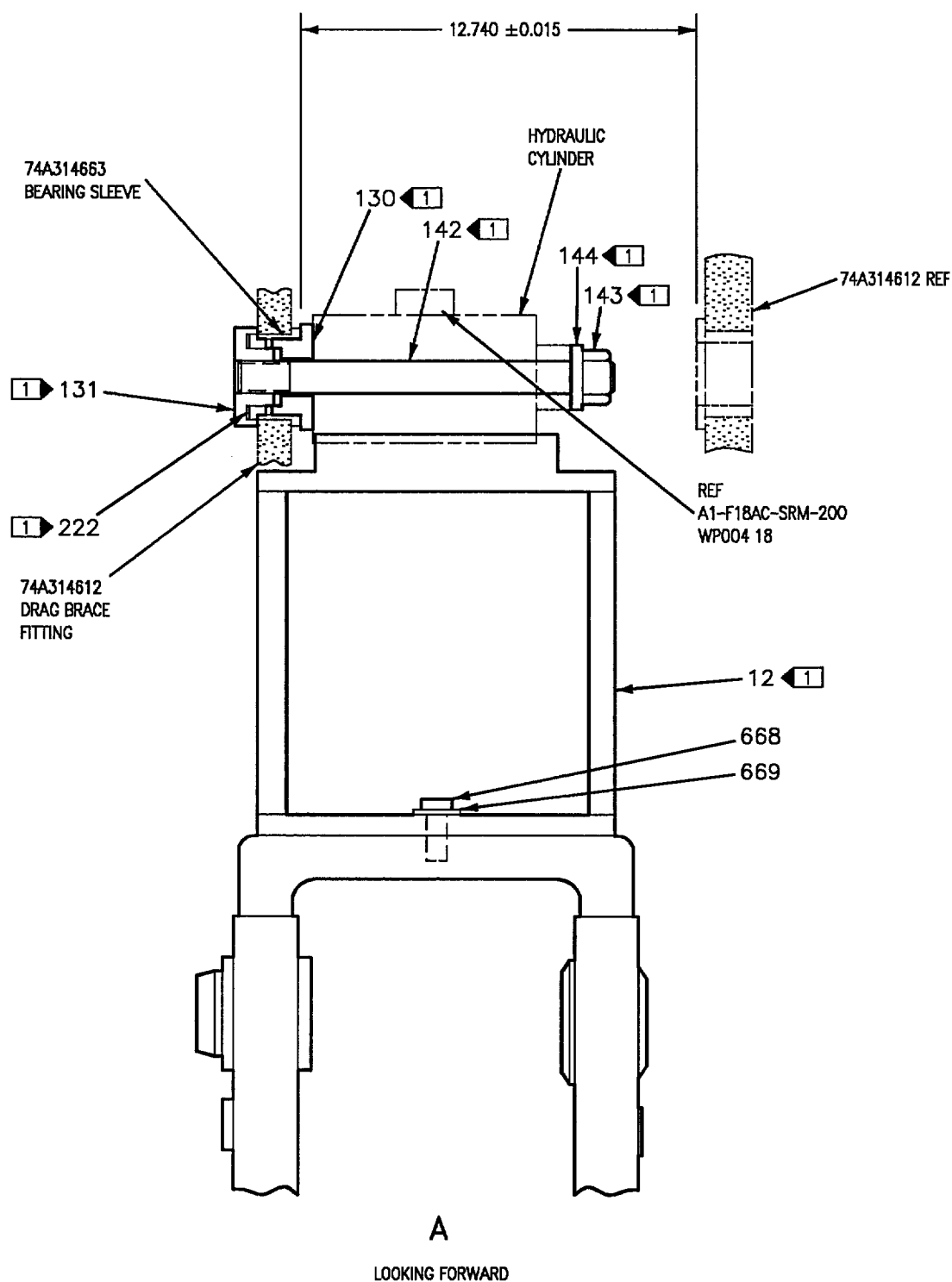
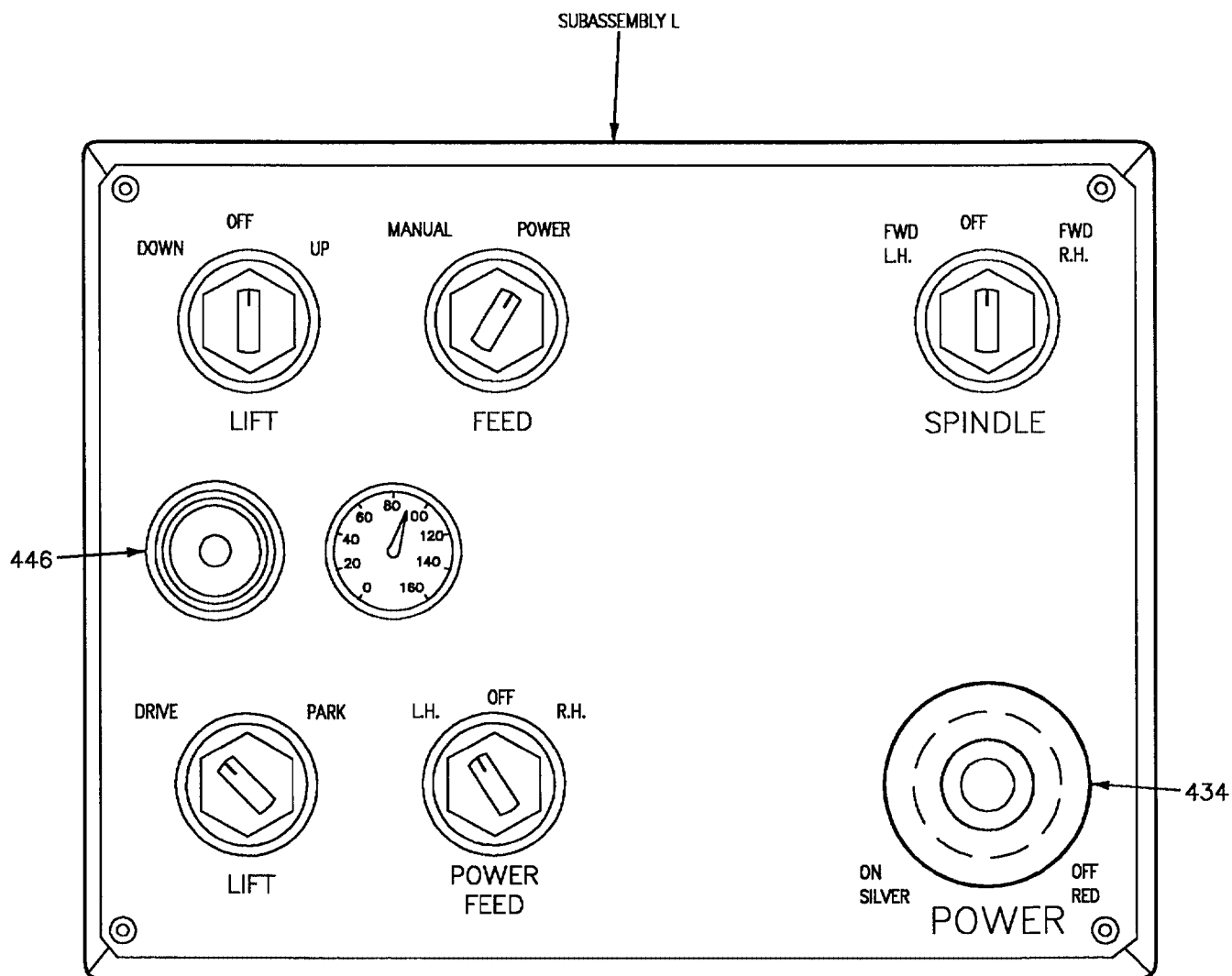


Figure 6. Drag Brace Bearing Sleeve Installation, Nominal Size (Sheet 2)

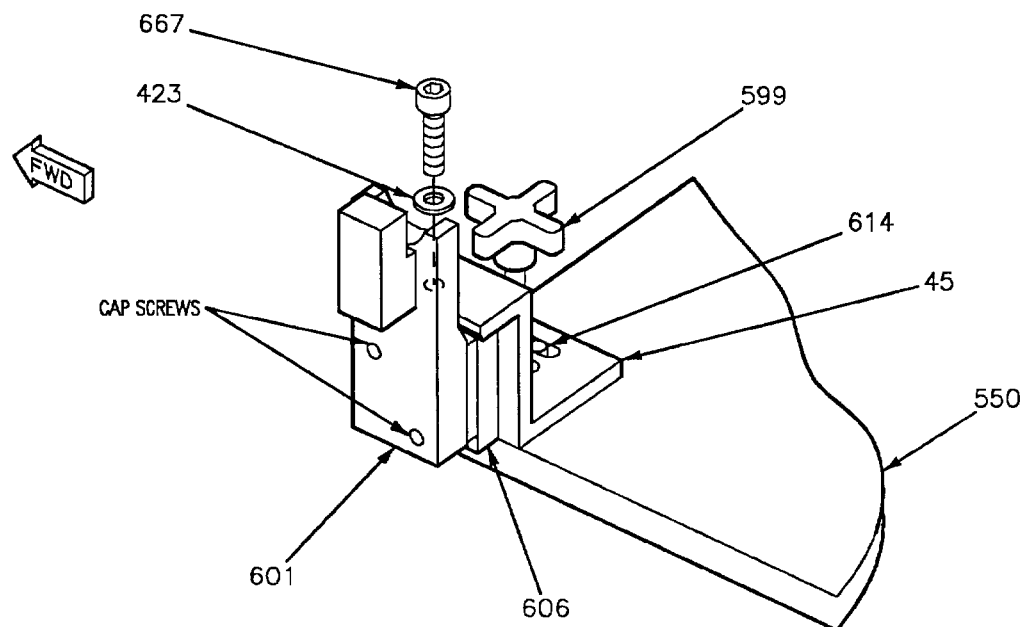


B

LEGEND

- 1 DETAILS FLAGGED ARE PART OF RE374314235
N.L.G. TRUNNION DRAG BRACE
SUPPORTS TOOL SET.

Figure 6. Drag Brace Bearing Sleeve Installation, Nominal Size (Sheet 3)

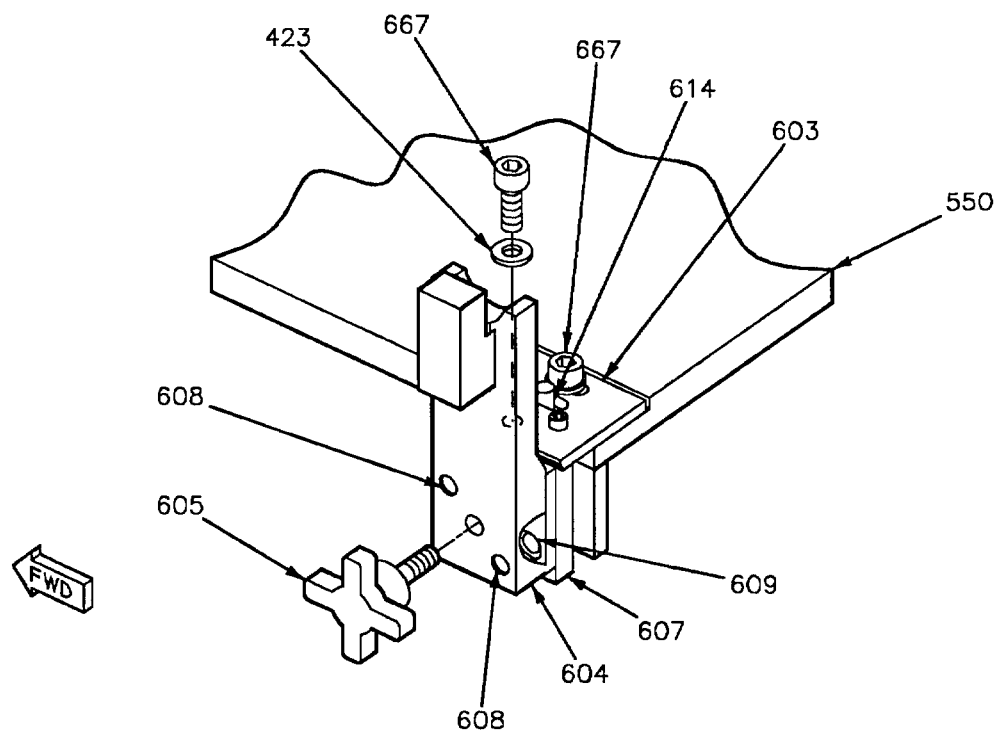


LEGEND

- 1 DETAILS FLAGGED ARE PART OF RE374314235 BEARING SLEEVE REMOVAL TOOL SET.

C

TYPICAL BOTH SIDES



D

TYPICAL BOTH SIDES

18AC-SRM-221-(120-4)03-CAT1

Figure 6. Drag Brace Bearing Sleeve Installation, Nominal Size (Sheet 4)








Detail No.	Name	Function
Subassembly E	Locating Assembly	Used to support (detail 12) by attaching with cap screw.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
ENERPAC RCH #202	Cylinder (Depot Furnished)	Used to operate (detail 142) by pushing it out board.
12 	Support	Used to support and align ENERPAC RCH #202 cylinder.
45	Welded Assembly	Used to align Subassembly E when not attached to aircraft in the trunnion area.
130 	Sleeve Fitting	Used to align (detail 142) through 74A314663 bearing sleeve.
131 	Cap	Used to secure (detail 142) into drag brace fitting 74A314612
142 	Threaded Stud	Used to secure sleeve fitting (detail 123 and 130) to (detail 131).
143 	Nut, Hex	Used to secure (detail 142 and 144) onto ENERPAC RCH #202 cylinder.
144 	Washer	Used with (detail 143) to take up slack on (detail 142).
222 	Sleeve Fitting	Used to secure (detail 131) into drag brace fitting 74A314663, bearing sleeve.
423	Washer	Used with cap screw to adjust dovetail guide (detail 606) up or down to position shaft (detail 260 or 275) in trunnion area.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
550	Lift Platform	Used to lift Subassembly E up or down.
599	Knob	Used to secure (detail 45) to lift platform (detail 550) in trunnion area.
601	Guide	Used to align subassembly E when not attached to aircraft.
603	Plate	Attached to (detail 550) with two cap screws, also as a support plate for (detail 607).
604	Guide	Used to align Subassembly E when not attached to aircraft.
605	Knob	Used to secure guide (detail 604) into dovetail slide (detail 607).

Figure 6. Drag Brace Bearing Sleeve Installation, Nominal Size (Sheet 5)

Detail No.	Name	Function
606	Dovetail Slide	Used to make adjustments on leveling Subassembly E in trunnion area when not attached to aircraft.
607	Dovetail Slide	Used to make adjustments on leveling Subassembly E in drag brace area when not attached to aircraft.
608	Nose Dowel Pins	Used to align guide (detail 604) into bullet nose bushings (detail 609) which are installed in dovetail slide (detail 607).
609	Bullet Nose Bushings	Used to align dowel pins (detail 608) which are installed in guide (detail 604).
614	Guide Pin	Used to align plate (detail 603) to lift platform (detail 550).
667	Cap Screws	Used to align (detail 285 opr 602) on (detail 601 or 607).
668	Cap Screw	Used with (detail 669) to secure (detail 12) to top of Subassembly E.
669	Washer	Used with (detail 668) to secure (detail 12) to top of Subassembly E.
LEGEND		
<div>1</div> Details flagged are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set.		

Figure 6. Drag Brace Bearing Sleeve Installation, Nominal Size (Sheet 6)

11. TRUNNION BEARING SLEEVE REAMING. Figure 7.

12. SET UP.

NOTE

Left and right procedures the same.

a. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn Lift knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, detail S.

b. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support, 74A314325.

c. Install sleeve fitting (detail 282) by attaching it to bushing (detail 276) using screw (detail 278) three places, or install sleeve fitting (detail 301) if bearing sleeve was removed because of damage. If unable to install sleeve fitting (detail 301), install sleeve fitting (detail 387), detail A.

d. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand drag brace fitting, 74A314612.

e. Install sleeve fitting (detail 279) by attaching it to bushing (detail 276) using screw (detail 278) three places, or install sleeve fitting (detail 293) if bearing sleeve was removed because of damage. If unable to install sleeve fitting (detail 293), install sleeve fitting (detail 383), detail B.

f. Place two L-pins (detail 264) in Nom position on plates (detail 192 and 193), detail L.

g. Loosen bolt (detail 245), clamp (detail 244) four places that are positioned on plate (detail 240).

h. Use adjusting screws (detail 242, 243 and 248) four places, detail L, so as to engage sleeve fitting (detail 282 or 301) into right hand trunnion fitting 74A314235, detail A, or sleeve fitting (detail 279 or

293) into the right hand drag brace fitting 74A314612, detail B.

i. If center to center is off in right hand drag brace fitting 74A314612, pull L pins (detail 264) on each side of Subassembly E. Loosen four screws (detail 267) on each side of Subassembly E. Adjust center distance by turning screw (detail 215) on each side of Subassembly E, detail A, either by tightening or loosening until sleeve fitting (detail 279 or 293) can be engaged into bearing sleeve 74A314663 or drag brace fitting 74A314612, detail B.

NOTE

Make sure that spacing is within ± 0.030 . If not, engineering disposition has to be obtained for out of dimension repair.

j. Install L-pins (detail 264) into adjustment hole from -0.030 to +0.030 on each side of Subassembly E based upon if forward or aft adjustment was made, detail L.

k. Torque screws (detail 267) four places on each side of Subassembly E to 60 ft lbs and clamp welded assembly (detail 20) with clamp (detail 244) with bolt (detail 245) four places, detail L.

l. Install plug (detail 286) into 2.751 diameter hole in plate (detail 192) at left hand drag brace fitting. Secure plug (detail 286) by locking in place with two nuts (detail 285), or install plug (detail 297) if bearing sleeve has been removed because of damage, detail B.

m. Install Subassembly F onto both sides of Subassembly E by pinning it with two L-pins (detail 178).

n. Swing Subassembly F up into the nose landing gear bay, then pin support (detail 23) with two L-pins (detail 178) on both sides of Subassembly E.

o. Check for correct X plane location, equal feel within ± 0.030 in nose landing gear bay at 74A314208 plates by inserting 0.250 inch feeler gage between L-brackets (detail 176) and 74A314208 plate on right side and between bushing (detail 177) and 74A314208 plate on left side, detail C.

p. Check for correct X plane location, equal feel within ± 0.030 at 74A314235 trunnion support area by

inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support right side and between bushing (detail 272) and 74A314235 trunnion support on left side, detail A.

q. If alignment check fails to meet the requirements at 74A314235 trunnion support, shim as required between plate (detail 191) and sleeve fitting (detail 282 or 301), detail A.

r. Check for correct X plane location, equal feel within ± 0.030 at 74A314612 drag brace support area by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support right side and between bushing (detail 272) and 74A314612 drag brace support on the left side, detail B.

s. If alignment check fails to meet the requirements of 74A314612 drag brace support, adjust plug (detail 286 or 297) by loosening or tightening nuts (detail 285) and/or shimming as required between plate (detail 193) and sleeve fitting (detail 279 or 293), detail B.

t. Secure plate (detail 191) to trunnion support fitting installing cap (detail 283) by attaching it with screw (detail 284), or attach cap (detail 292), if bearing sleeve was removed because of damage, detail A.

u. Secure plate (detail 193) to right hand drag brace support installing cap (detail 280) by attaching it with screw (detail 281), detail B.

v. Secure plate (detail 192) to left hand drag brace support by installing cap (detail 280) by attaching it with screw (detail 287), detail B.

w. Secure Subassembly E to airframe.

(1) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 323), detail F.

(2) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 325), detail F.

(3) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 318), detail G.

(4) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 320), detail G.

(5) On left side of longeron 74A314619, attach block (detail 315) to plate (detail 190) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, detail H.

(6) On right side of longeron 74A314619, attach block (detail 316) to plate (detail 191) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, detail H.

(7) On right side of longeron 74A314612, attach block (detail 313) to plate (detail 193) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, detail J.

(8) On left side of longeron 74A314612 attach block (detail 314) to plate (detail 192) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, detail J.

(9) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, detail K.

x. Check inside diameter of 74A314395 Bearing Sleeve.

(1) Slide Subassembly A as far as possible to the left side of Subassembly E and still clear plate (detail 190).

(2) On Subassembly L, turn LIFT knob switch to PARK position, detail S.

(3) Remove Subassembly R from bracket (detail 43) which is located on right hand side of tool frame.

(4) Install motor (detail 331) through lower 4.00 inch diameter hole in plate (detail 191) locking it in place with Subassembly A, detail A.

(5) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 191). Install indicator (detail 219) with bushing (detail 218) locking it in place with two set screws (detail 158), detail A.

(6) Install blade (detail 220) onto indicator (detail 219), detail A.



Make sure hoses (detail 354) are connected to proper inlets.

(7) Connect hoses (detail 354) to motor (detail 331).

(8) On Subassembly L, turn LIFT knob switch to DRIVE position and turn FEED knob switch to MANUAL position. Turn SPINDLE knob switch to FWD L H position, detail S.

(9) Sweep inside diameter of left hand trunnion fitting bearing sleeve with indicator (detail 219), detail A.

(10) Indicator (detail 219) should read within 0.003 to verify bearing sleeve will cleanup, detail A.

(11) If bearing sleeve will not clean up, do TRUNNION BEARING SLEEVE REMOVAL and INSTALLATION, NOMINAL SIZE procedure, this WP.

(12) On Subassembly L, turn FEED knob switch to POWER position. Turn SPINDLE knob switch to OFF position, detail S.

(13) Remove indicator (detail 219) from bushing (detail 218) by removing two screws (detail 158), detail A.

y. Do reaming procedure, this WP.

13. REAMING.

NOTE

Left and right procedures the same.

a. Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), detail N.

b. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in detail A. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), detail A.

c. Feed Subassembly A, as far as possible to the right hand side using feed from Subassembly H, detail A.

d. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, detail A.

e. Pivot Subassembly A forward to gain access to install bushing (detail 270) in upper portion of plate (detail 190).

f. Install stop shoulder (detail 382) to hold bushing (detail 270) in place by attaching stop shoulder (detail 382) with screw (detail 271), detail E.

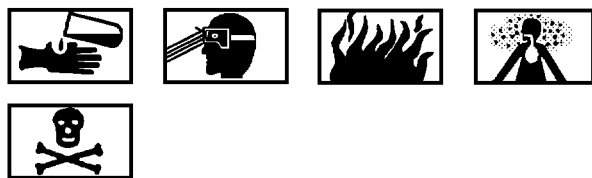
g. Insert driver SPT6-RE374314235TD into bushing (detail 270) and against bottom of bearing sleeve 74A314395, detail M.

h. Rotate Subassembly A back to it's upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), detail A.

i. Install reamer, SPT23-RE374314235TD between plate (detail 190) and left hand trunnion fitting 74A314235, detail M.

j. Slide reamer, SPT23-RE374314235TD onto driver, SPT6-RE374314235TD and rotate 90° to lock it in place, detail M.

k. On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position and turn LIFT knob switch to DRIVE position. Turn POWER FEED knob switch to LH, detail S.



Beryllium

13



Do not feed too far past relief in bearing sleeve to prevent damage to bottom of bearing sleeve.

l. Power feed reamer, SPT23-RE374314235TD into bearing sleeve 74A314395 to ream inside diameter to 1.8750 +0.0016 -0.0000 diameter, detail M.

m. On Subassembly L, turn SPINDLE knob switch to OFF position, detail S.

n. Back reamer, SPT23-RE374314235TD out of bearing sleeve 74A314395 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, detail S.

o. Remove reamer, SPT23-RE374314235TD from between inboard side of trunnion fitting 74A314235 and Subassembly E, detail M.

p. Remove driver, SPT6-RE374314235TD from Subassembly A by removing two set screws (detail 158) and slide it between plate (detail 190) and left hand trunnion fitting 74A314235, detail M.

q. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, detail A.

r. Pivot Subassembly A forward to gain access to remove driver, SPT6-RE374314235TD from bushing (detail 270), detail M.

s. Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), detail M.

t. Do spotfacing procedure, this WP.

14. **SPOTFACING.** Spray mist coolant tank assembly RE874000002-1, is used during spotfacing per (A1-F18AC-SRM-200 WP004 16).

NOTE

Left and right procedures the same.

a. Slide Subassembly A as far as possible to the right hand side of Subassembly E.

b. Remove screw (detail 271) securing holding stop (detail 382) onto plate (detail 192), detail E.

c. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, detail A.

d. Pivot Subassembly A forward to gain access to install shaft (detail 213) into bushing (detail 270) and against bottom of bearing sleeve 74A314395, detail P.

e. Attach holding stop (detail 382) to plate (detail 192) using screw (detail 271), detail E.

f. Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), detail A.

g. From inboard side of Subassembly E, slide spacer (detail 214) onto shaft (detail 213) securing it with two set screws, detail R.

h. Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), detail N.

i. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in detail A. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), detail A.

j. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount shaft (detail 213) into Subassembly A and lock it in place with two set screws (detail 158), detail P.

NOTE

Check cutter, SPT10-RE374314235TD for sharpness after each operation. Cutter may require resharpening.

k. Slide cutter, SPT10-RE374314235TD between Subassembly E and left hand trunnion fitting, 74A314235 onto shaft (detail 213). Rotate shaft (detail 213) 90° to lock it in place, detail R.

l. Install shim (detail 21) onto cutter, SPT10-RE374314235TD using retaining ring (detail 16) to lock it in place, detail R.

m. Set depth of spotfacer, SPT10-RE374314235TD according to the reading taken in paragraph 9, step q, with stop collar (detail 214), detail R.

n. Slide Subassembly A as far as possible to the left side of Subassembly E and still clear plate (detail 190).

o. On Subassembly L, turn LIFT knob switch to PARK position, detail S.

p. Remove motor (detail 331) from bracket (detail 43) which is located on right hand side of tool frame.

q. Install motor (detail 331) through lower 4.00 inch diameter hole in plate (detail 191) locking it in place with Subassembly A, detail A.



Make sure hoses (detail 354) are connected to proper inlets.

r. Connect hoses (detail 354) to motor (detail 331).

s. On Subassembly L, turn SPINDLE knob switch to FWD L H position and turn FEED knob switch to POWER position. Turn POWER FEED to L. H. position, detail S.

t. Power assisted hand feed cutter, SPT10-RE374314235TD to spotface bearing sleeve, 74A314395, until (detail 214) makes contact with (detail 270), detail P.

u. Back cutter, SPT10-RE374314235TD from face of bearing sleeve 74A314395 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, detail S.

v. Loosen two set screws attaching spacer (detail 214) onto shaft (detail 213), detail R.

w. Unlock retaining ring (detail 16) and remove it and shim (detail 21) from cutter, SPT10-RE374314235TD, detail R.

x. Rotate cutter, SPT10-RE374314235TD 90° on shaft (detail 213) and remove it between drag brace fitting 74A314612 and Subassembly E, detail P and R.

y. Remove shaft (detail 213) from Subassembly A by removing two set screws (detail 158). Unlock cutter, SPT10-RE374314235TD by rotating 90° and slide it between plate (detail 190) and left hand trunnion fitting, 74A314235, detail R.

z. Slide spacer (detail 214) from shaft (detail 213), detail R.

aa. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A. Pivot Subassembly A forward to gain access to remove shaft (detail 213), detail R.

ab. Rotate Subassembly A back to its upright position. Install (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), detail L.

ac. Remove Subassembly E.

(1) Disconnect hoses (detail 354) from motor (detail 331).

(2) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 190).

(3) On Subassembly L, turn LIFT knob switch to PARK position, detail S.

(4) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 191).

(5) Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame, detail A.

(6) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

(7) Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334). Remove Subassembly H through lower hole in plate (detail 192), detail A. Attach Subassembly H to left side of tool frame with knob (detail 655).

(8) At right hand trunnion support 74A314235, remove screw (detail 284) and cap (detail 283 or 292) from plate (detail 191), detail A.

(9) At left hand drag brace support 74A313612, remove screw (detail 287) and cap (detail 280) from plate (detail 192), detail B.

(10) At right hand drag brace support 74A314612, remove screw (detail 281) and cap (detail 280) from plate (detail 193), detail B.

(11) On left hand drag brace fitting 74A314612, remove two nuts (detail 285) holding plug (detail 286 or 297) to plate (detail 192). Remove plug (detail 286 or 297) from inboard side of plate (detail 192), detail B.

(12) On left hand trunnion fitting 74A314235, remove retaining screw (detail 322) and jack (detail 323) attached to trunnion fitting, 74A314235. Remove cap screw (detail 324) and clamp (detail 26) from plate (detail 190), detail F.

(13) On right hand trunnion fitting 74A314235, remove retaining screw (detail 322) and jack (detail 325) attached to trunnion fitting, 74A314235. Remove cap screw (detail 326) and clamp (detail 27) from plate (detail 191), detail F.

(14) On left hand side of longeron 74A314612, remove retaining screw (detail 317) and jack (detail 320) attached to longeron, 74A314612. Remove cap screw (detail 321) and clamp (detail 25) from plate (detail 192), detail G.

(15) On right hand side of longeron 74A314612, remove retaining screw (detail 317) and jack (detail 318) attached to longeron, 74A314612. Remove cap screw (detail 319) and clamp (detail 24) from plate (detail 193), detail G.

(16) On left hand side of longeron 74A314619, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron, 74A314619. Remove two screws

(detail 312) and block (detail 316) from plate (detail 191), detail H.

(17) On right hand side of longeron 74A314619, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314619. Remove two screws (detail 312) and block (detail 315) from plate (detail 190), detail H.

(18) On left hand side of longeron 74A314612, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron, 74A314612. Remove two screws (detail 312) and block (detail 314) from plate (detail 192), detail J.

(19) On right hand side of longeron 74A314612, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron, 74A314612. Remove two screws (detail 312) and block (detail 313) from plate (detail 193), detail J.

(20) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), detail K.

(21) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, detail S.

(22) On right hand trunnion support 74A314235, remove screw (detail 278) three places and bushing (detail 276) from inboard side of plate (detail 191). Remove sleeve fitting (detail 282, 301 or 387) from outboard side of plate (detail 191), detail A.

(23) On right hand drag brace fitting 74A314612, remove screw (detail 278) three places and bushing (detail 276) from inboard side of plate (detail 193). Remove sleeve fitting (detail 279, 293 or 383) from outboard side of plate (detail 193), detail B.

(24) In left side drag brace area 74A314612, remove screw (detail 273) and washer (detail 274), holding pin bushing (detail 272) onto plate (detail 192), detail B.

(25) In left side trunnion support area 74A314235, remove screw (detail 273) and washer (detail 274), holding pin bushing (detail 272) onto plate (detail 190), detail A.

(26) If repair is complete, do locating fixture removal, this WP.

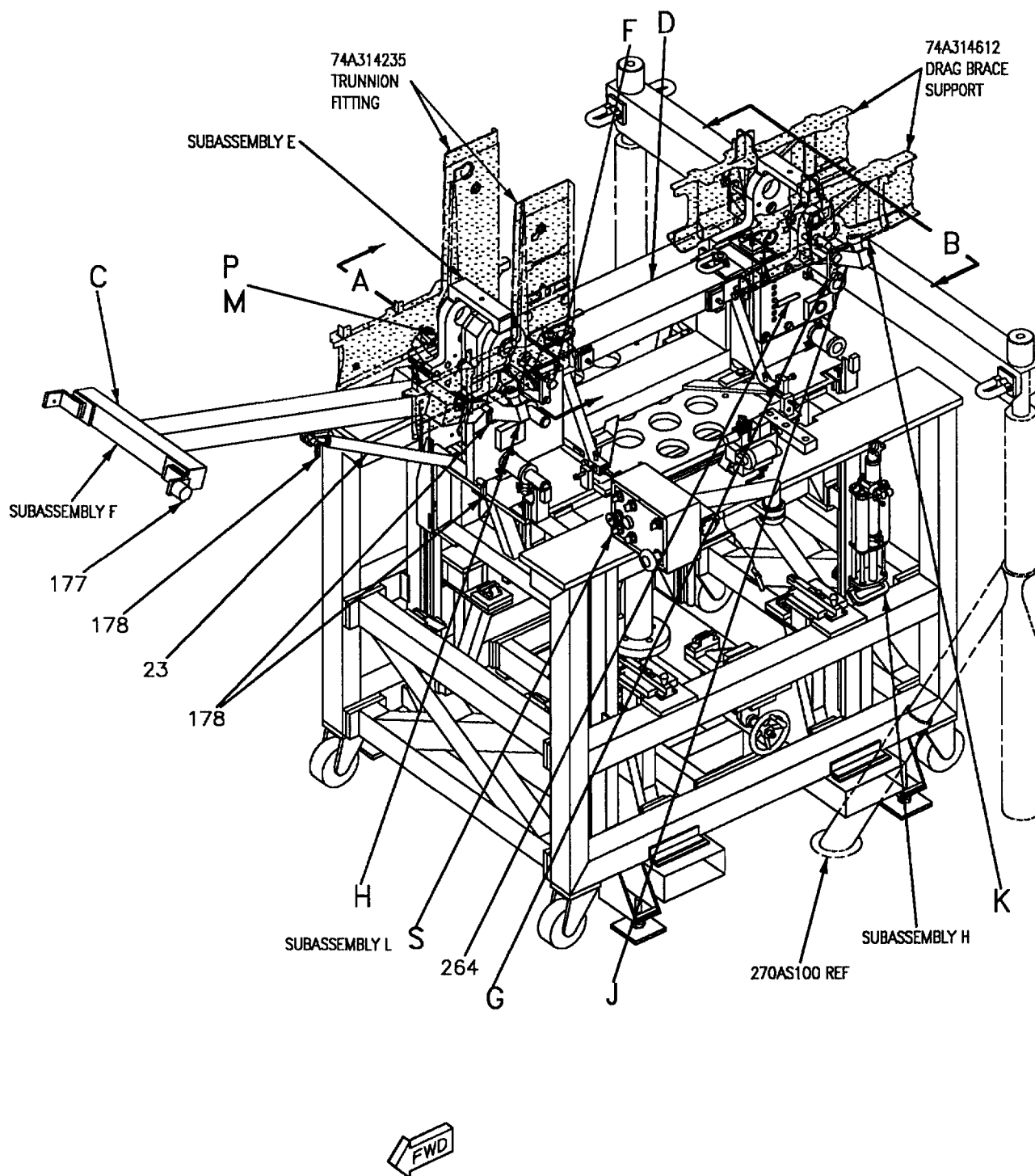


Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 1)

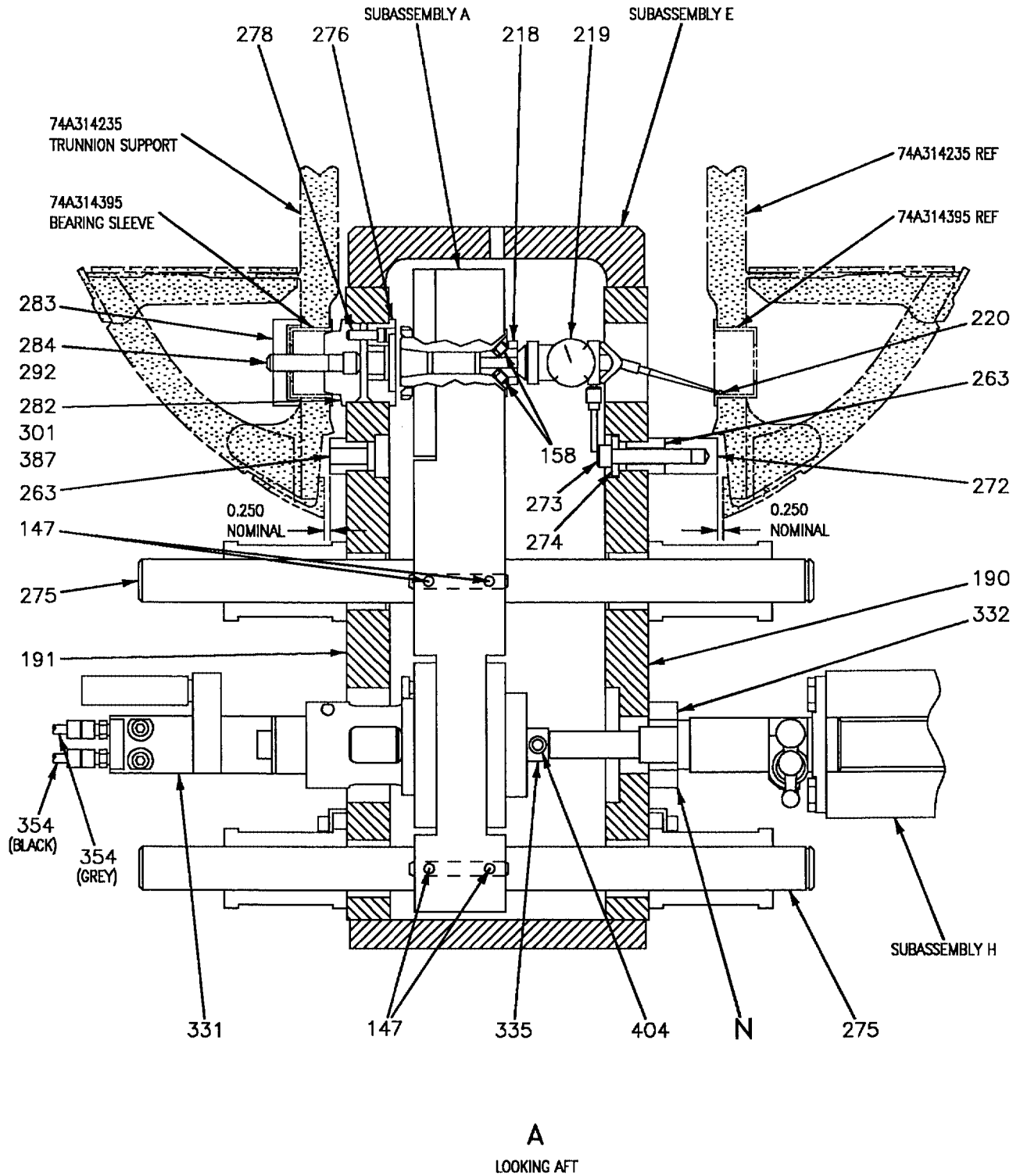
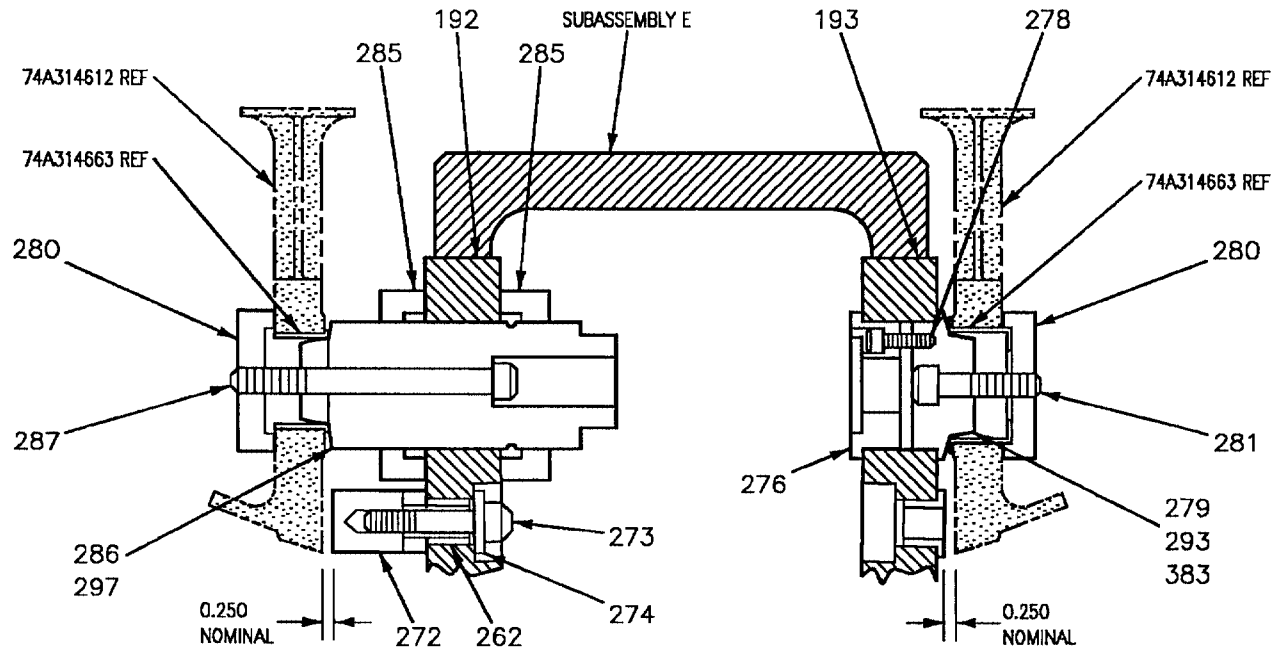
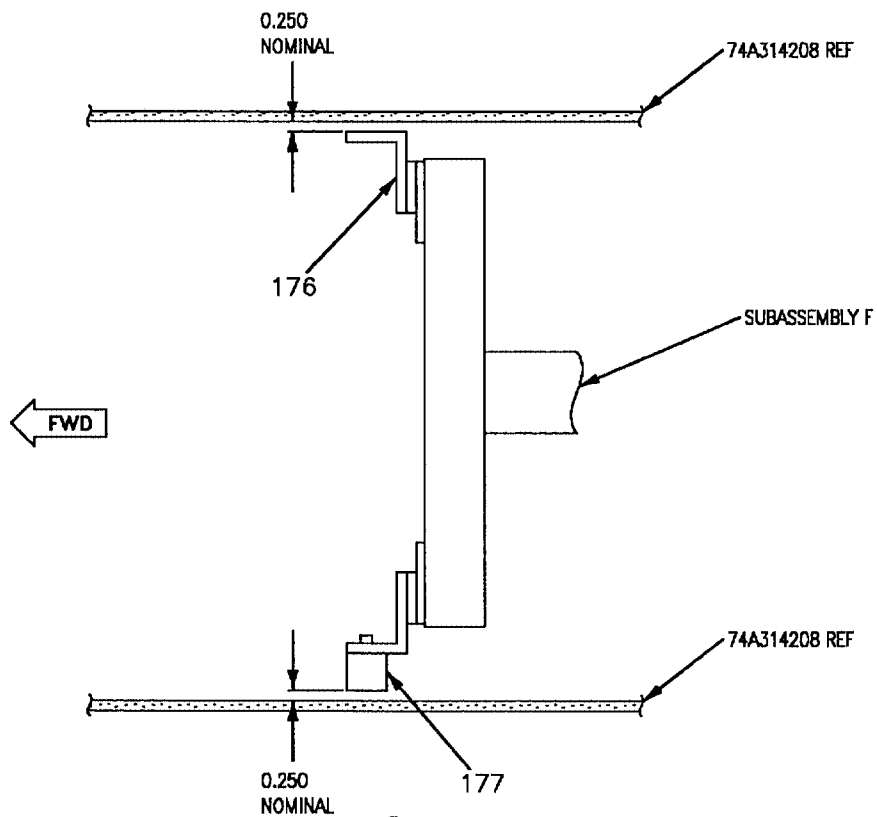


Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 2)



B

LOOKING FORWARD



C

LOOKING DOWN

Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 3)

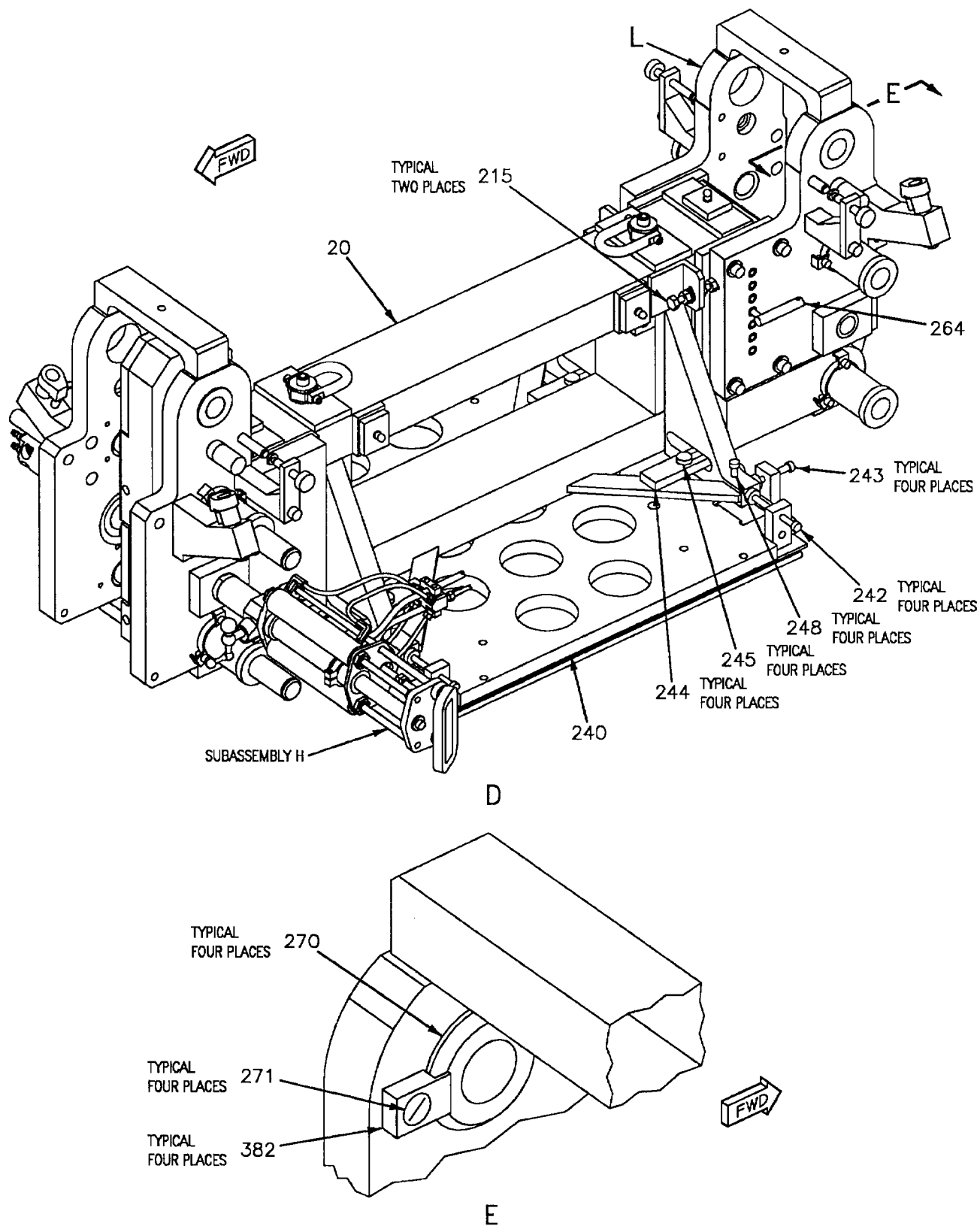
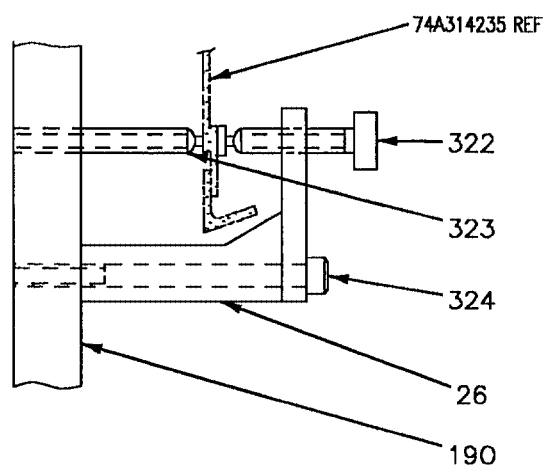
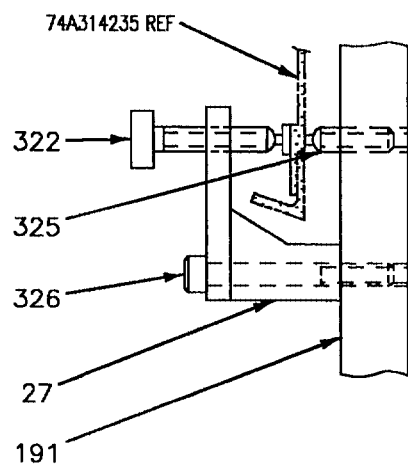
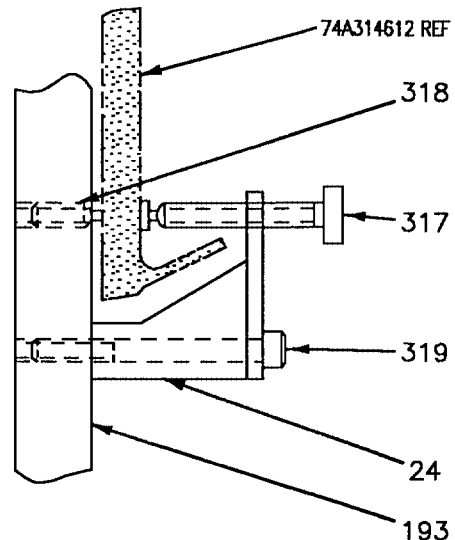
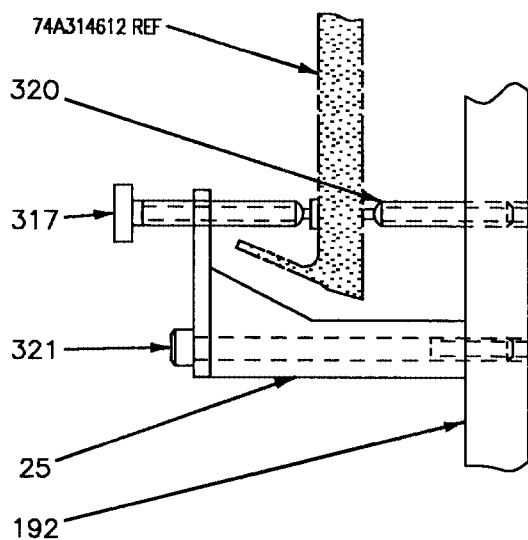


Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 4)

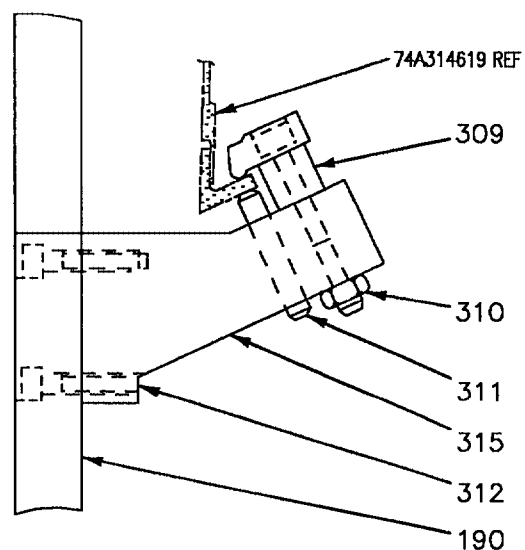
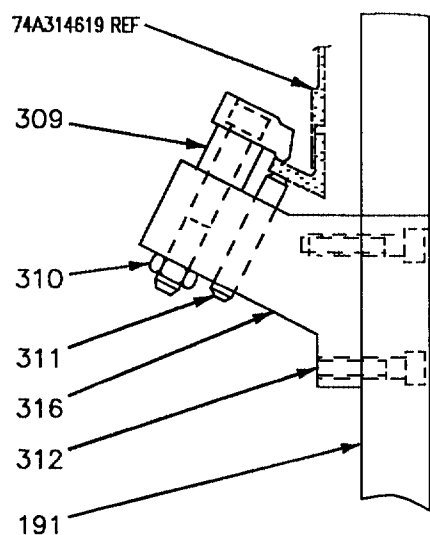


F
LOOKING AFT

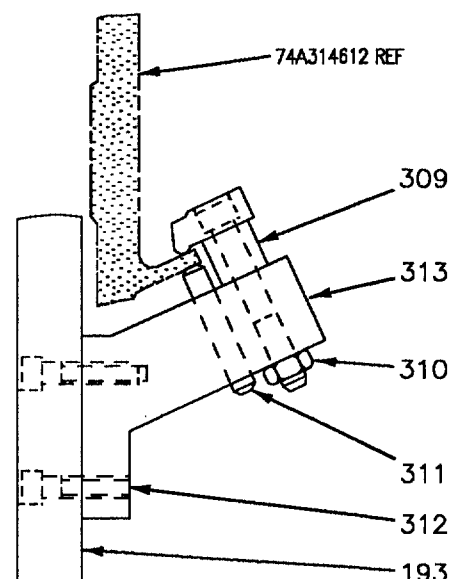
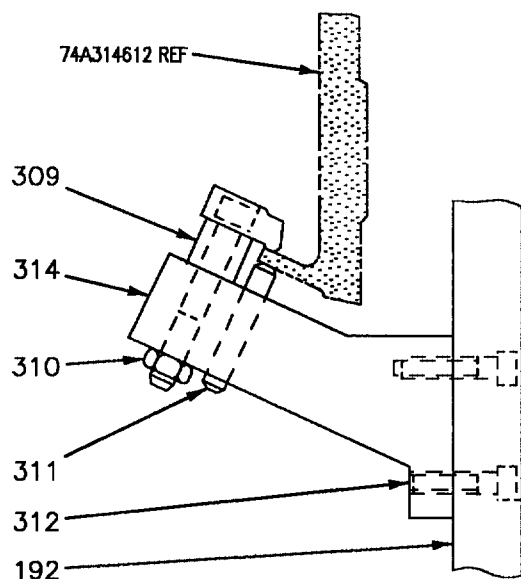


G
LOOKING FORWARD

Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 5)

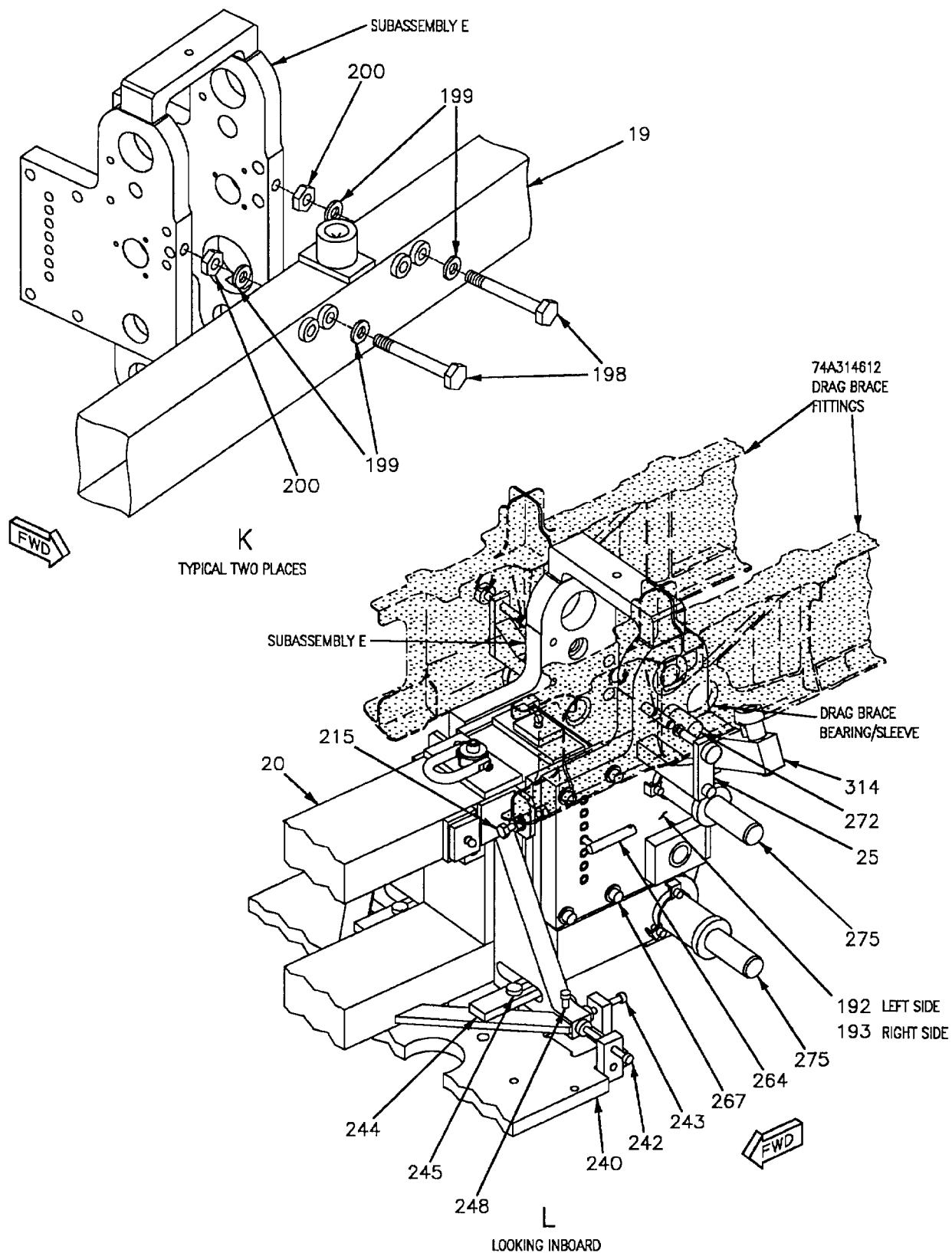


H
LOOKING AFT



J
LOOKING FORWARD

Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 6)



18AC-SRM-221-(121-7)02-CAT1

Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 7)

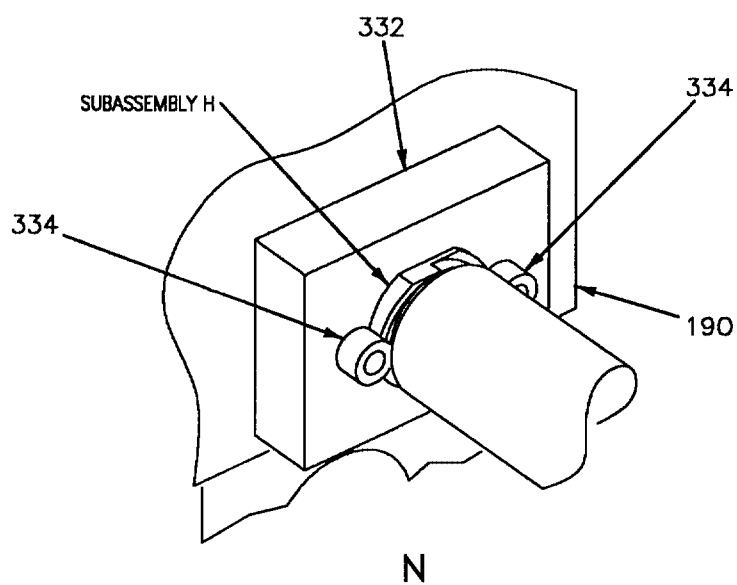
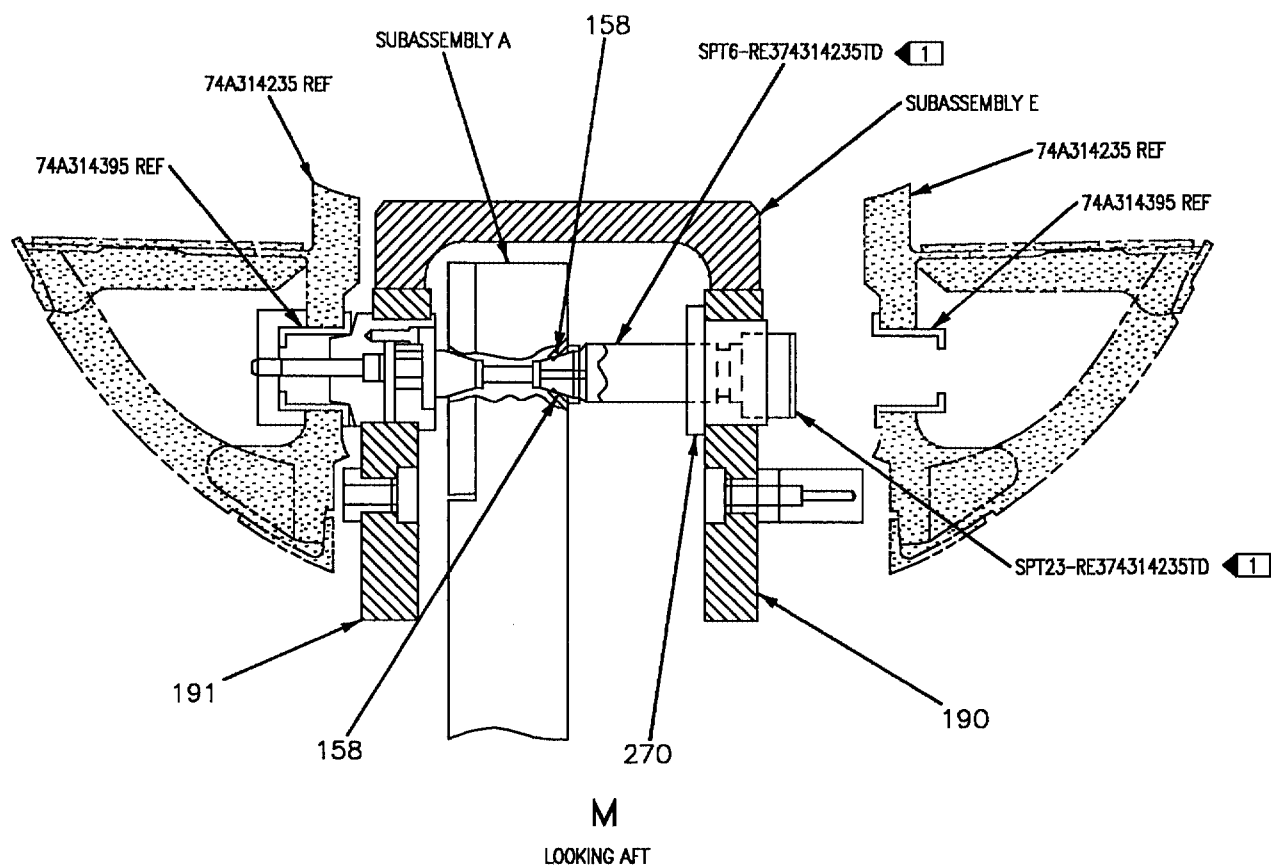


Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 8)

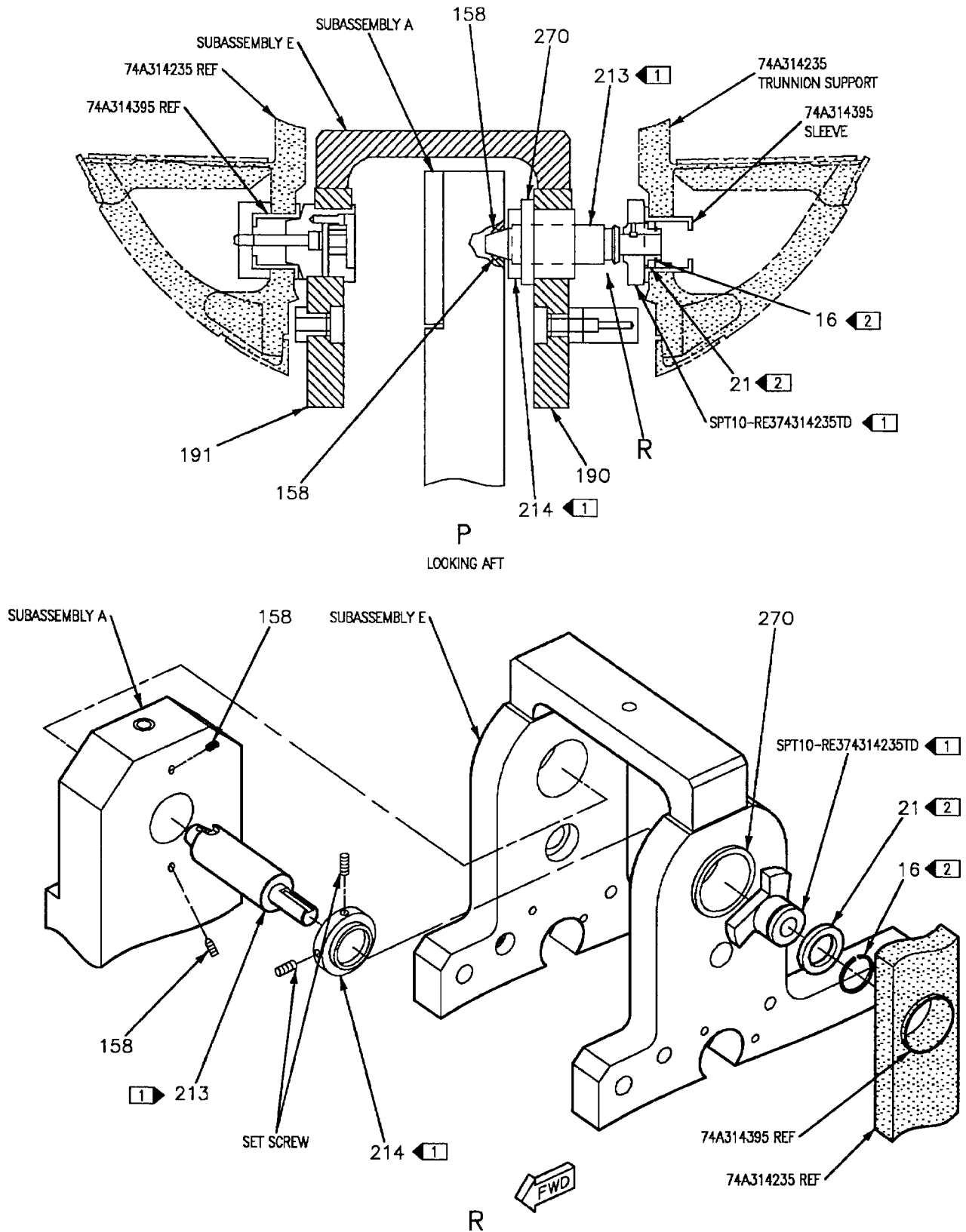
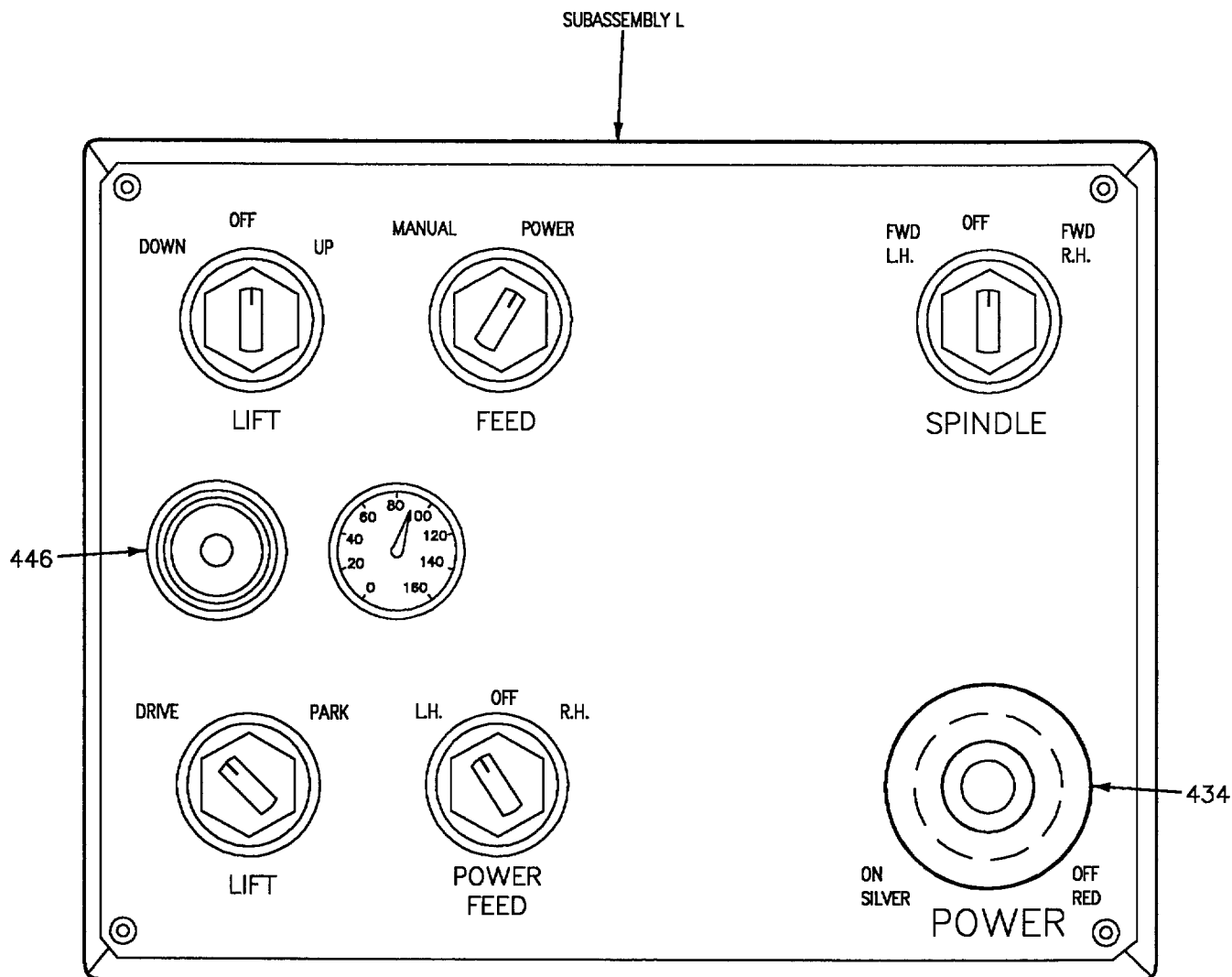


Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 9)



S

LEGEND

- 1 ▸ DETAIL IS PART OF RE374314235 N.L.G. TRUNNION DRAG BRACE SUPPORTS TOOL SET.
- 2 ▸ DETAILS 16, AND 21 ARE PART OF SPT10-RE374314235TD SPOTFACER ASSEMBLY.

Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 10)






Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing sleeves.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly F	Alignment Frame	Checks for correct X plane location in nose landing gear bay.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
SPT6- RE374314235TD 	Driver	Used to align and secure reamers in cutting and spotfacing operations.
SPT10- RE374314235TD 	Cutter	Used to spotface trunnion and drag brace bearing sleeves.
SPT23- RE374314235TD 	Reamer	Used to ream inside diameter of trunnion bearing sleeve.
16 	Retaining Ring	Used to hold (detail 21) onto SPT10-RE374314235TD.
19	Jacking Beam	Used to support the aircraft and secure Subassembly E using (detail 198, 199 and 200).
20	Welded Assembly	Used to attach (detail 240) and becomes a part of Subassembly E.
21 	Shim	Used to align (detail 213) to inside diameter of 74A314395 bearing sleeve.
23	Support	Pins to Subassembly E with (detail 178) and to Subassembly F with (detail 178) supporting Subassembly F in nose landing gear bay.
24	Clamp	Used to hold 74A314612 right hand trunnion and (detail 193) in the correct position, using (detail 319).
25	Clamp	Used to hold 74A314612, left hand trunnion and (detail 192) in the correct position using (detail 321).
26	Clamp	Used to hold 74A314235, left hand drag brace and (detail 190) in the correct position using (detail 324).
27	Clamp	Used to hold 74A314235, right hand drag brace and (detail 191) in the correct position using (detail 326).
31	Fixture	Houses controls to operate locating fixture.

Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 11)



Detail No.	Name	Function
43	Bracket	Holds motor (detail 331) on the lower right side of the tool frame when not in use on Subassembly E.
147	Set Screws	Used to secure shaft (detail 275) to Subassembly A.
158	Set Screw	Used to lock in place (detail 218) into Subassembly A.
176	L-brackets	Used to check for correct X plane between 74A314208 plates.
177	Bushing	Used to check for correct X plane between 74A314208 plate on right side of nose landing gear bay.
178	L-pins	Aligns support locator (detail 23) in nominal position.
190	Plate	Part of Subassembly E, used to align and for attaching components on left side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right side of drag brace area.
198	Screws	Attach (detail 19) to Subassembly E with (detail 199 and 200).
199	Swivel Washers	Used on forward and aft side of (detail 19) with (detail 198 and 200) to attach (detail 19) to Subassembly E.
200	Nuts	Used on forward side of (detail 19) with (detail 198) to attach (detail 19) to Subassembly E.
213 	Shaft	Used to align and secure SPT10-RE374314235TD in spotfacing on trunnion sleeve.
214 	Spacer	Used to gage amount that (detail 21) can take off of trunnion bearing sleeve, 74A314395.
215	Screws	Adjusts center to center distance in right side drag brace area.
218	Bushing	Attach (detail 219) by locking it into Subassembly A with (detail 158).
219	Indicator	Used to verify if bearing sleeve will clean up.
220	Blade	Used with (detail 218 and 219) in verifying that bearing sleeve will clean up.
240	Plate	Used to support and lift Subassembly E.

Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 12)

Detail No.	Name	Function
242	Adjusting Screws	Used to adjust (detail 279 or 293) into right hand trunnion fitting.
243	Adjusting Screws	Used with (detail 242) to adjust (detail 279 or 293) into right hand trunnion fitting.
244	Clamp	Used to secure Subassembly E to (detail 20) and (detail 240).
245	Bolt	Used to secure (detail 244) to (detail 240).
248	Adjusting Screws	Used to adjust height of Subassembly E from (detail 240).
258	Plate	Used to secure (detail 190 and 191) together, attaching it with (detail 380).
262	Bushing	Used to check for correct X plane location in left and right side drag brace area.
263	Bushings	Used to check for correct X plane location in left and right side trunnion area.
264	L-pins	Used to secure (detail 192) and (detail 20) in drag brace area.
267	Screws	Used to lock in place (detail 192) and (detail 20).
270	Bushing	Used to guide (detail 213) into Subassembly A.
271	Screw	Used to secure (detail 382) to (detail 190).
272	Holding Pin Bushing	Used to check for correct X plane location in left side trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
275	Shafts	Used to support Subassembly A in Subassembly E secured with (detail 147).
276	Bushings	Installed into (detail 191 and 193), secured to (detail 279 or 293) with (detail 278).
278	Screws	Used to secure (detail 276) to (detail 279 or 293).
279	Sleeve Fittings	Installed into (detail 191 and 193), secured to (detail 276) with (detail 278).
280	Caps	Used to take up the slack in Z plane in drag brace area. Secured with (detail 281 and 287).
281	Screw	Used to secure (detail 280) to left hand drag brace, 74A314612.

Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 13)

Detail No.	Name	Function
282	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
283	Cap	Used to take up the slack in Z plane in right hand trunnion fitting.
284	Screw	Used to secure (detail 283) to right hand trunnion fitting.
285	Nuts	Used to lock (detail 286) into (detail 192).
286	Plug	Used to line up left hand drag brace sleeve 74A314663, with (detail 285).
287	Screw	Used to secure (detail 280) and take up slack between 74A314612 and (detail 272) in left side drag brace area.
292	Cap	Used to take up the slack in Z plane in right hand trunnion fitting.
293	Sleeve Fitting	Installed into (detail 193), secured to (detail 276) with (detail 278).
297	Plug	Used to line up left hand drag brace sleeve 74A314663, with (detail 285).
301	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
309	Clamp Assemblies	Used to secure 74A314612 and 74A314619 longeron.
310	Nuts	Used to tighten up (detail 309) in trunnion and drag brace area.
311	Jacks	Used to take up slack between (detail 309) and 74A314612 and 74A314619 longeron.
312	Screws	Used to attach (detail 313, 314, 315 and 316) to Subassembly E.
313	Block	Attached to (detail 193) and used as support for (detail 309).
314	Block	Attached to (detail 192) and used as support for (detail 309).
315	Block	Attached to (detail 190) and used as support for (detail 309.)
316	Block	Attached to (detail 191) and used as support for (detail 309).
317	Retaining Screws	Used to secure left and right hand longeron 74A314612 to Subassembly E.
318	Jack	Used to help secure right hand longeron 74A314612 to Subassembly E.
319	Cap Screw	Used to attach (detail 24) to (detail 193).
320	Jack	Used to help secure left hand longeron 74A314612 to Subassembly E.

Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 14)

Detail No.	Name	Function
321	Cap Screw	Used to attach (detail 25) to (detail 192).
322	Retaining Screws	Used to secure left and right hand trunnion support 74A314235 to Subassembly E.
323	Jack	Used to help secure left hand trunnion support 74A314235 to Subassembly E.
324	Cap Screw	Used to attach (detail 26) to (detail 190).
325	Jack	Used to help secure right hand trunnion support 74A314235 to Subassembly E.
326	Cap Screw	Used to attach (detail 27) to (detail 191).
331	Motor	Used to operate the system.
332	Block	Attached to Subassembly E and used as a guide for Subassembly H.
334	Lock Button	Used to lock Subassembly H into place on Subassembly E.
335	Clevis	Used to attach Subassembly H to Subassembly A, secured with (detail 404).
354	Hoses	Used to provide air pressure to motor (detail 331).
382	Stop	Used to hold (detail 270) in place with (detail 271).
383	Sleeve Fitting	Used in place of (detail 293) if it will not fit into drag brace fitting.
387	Sleeve Fitting	Used in place of (detail 301) if it will not fit into trunnion fitting.
404	Shoulder Screw	Used to secure (detail 335) and Subassembly H.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
455	Hand Crank	Used to manual move (detail 550) up or down.
478	Fittings	Used to connect hoses (detail 354) to motor (detail 331) when installed on Subassembly A.
550	Lift Platform	Used to lift Subassembly E up or down.
598	Block	Used as a stop for (detail 550).
LEGEND		
<div> <div>1</div> Details are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set. </div> <div> <div>2</div> Details 16 and 21 are part of SPT10-RE374314235TD Spotfacer Assembly. </div>		

Figure 7. Trunnion Bearing Sleeve Reaming (Sheet 15)

15. DRAG BRACE SLEEVE REAM-ING. Figure 8.

16. SET UP.

- a. Remove Subassembly A from Subassembly E.

(1) Slide plate (detail 240) as far forward as possible, figure 8, detail A.

(2) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard clearing Subassembly E, figure 8, detail E.

(3) Pivot Subassembly A forward and loosen two lower set screws (detail 147). Slide lower shaft (detail 275) outboard clearing Subassembly E. Lowering Subassembly A down onto plate (detail 258).

- b. Install Subassembly A into aft portion of Subassembly E.

(1) Slide lift platform (detail 550) as far aft as possible, figure 8, detail B.

(2) Place Subassembly A between plate (detail 192 and 193), install upper and lower shaft (detail 275) and tighten upper and lower two set screws (detail 147), figure 8, detail E.

(3) Slide lift platform (detail 550) forward until locator pins (detail 610) mates with locator bushings (detail 611), figure 8, detail C.

NOTE

Left and right procedures the same.

- c. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 8, detail G.

- d. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand drag brace support, 74A314612.

- e. Install sleeve fitting (detail 279) by attaching it to bushing (detail 276) using screw (detail 278) three places, or install sleeve fitting (detail 293) if bearing sleeve was removed because of damage. If unable to install sleeve fitting (detail 293), install sleeve fitting (detail 383), figure 8, detail E.

- f. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion fitting 74A314235.

- g. Install sleeve fitting (detail 282) by attaching it to bushing (detail 276) using screw (detail 278) three places, or install sleeve fitting (detail 301) if bearing sleeve was removed because of damage. If unable to install sleeve fitting (detail 301), install sleeve fitting (detail 387), figure 8, detail F.

- h. Place two L-pins (detail 264) in Nom position on plates (detail 192 and 193), figure 7, detail L.

- i. Loosen bolt (detail 245), clamp (detail 244) four places that are positioned on plate (detail 240).

- j. Use adjusting screws (detail 242, 243 and 248) four places, figure 7, detail L, so as to engage sleeve fitting (detail 282 or 301) into right hand trunnion fitting 74A314235, figure 8, detail F, or sleeve fitting (detail 279 or 293) into right hand drag brace fitting 74A314612, figure 8, detail E.

- k. If center to center is off in right hand drag brace fitting 74A314612, pull L-pins (detail 264) on each side of Subassembly E. Loosen four screws (detail 267) on each side of Subassembly E. Adjust center distance by turning screw (detail 215) on each side of Subassembly E, figure 7, detail L, either by tightening or loosening until sleeve fitting (detail 279 or 293) can be engaged into bearing sleeve 74A314663 or drag brace fitting 74A314612, figure 8, detail E.

NOTE

Make sure that spacing is within ± 0.030 . If not, engineering disposition has to be obtained for out of dimension repair.

- l. Install L-pins (detail 264) into adjustment hole from -0.030 to +0.030 on each side of Subassembly E based upon if forward or aft adjustment was made, figure 7, detail L.

- m. Torque screws (detail 267) four places on each side of Subassembly E to 60 ft lbs and clamp welded

assembly (detail 20) with clamp (detail 244) with bolt (detail 245) four places, figure 7, detail L.

n. Install plug (detail 288) into 2.751 diameter hole in plate (detail 190) at left trunnion fitting. Secure plug (detail 288) by locking it in place with two nuts (detail 285), or install plug (detail 305) if bearing sleeve has been removed because of damage, figure 8, detail F.

o. Install Subassembly F onto both sides of Subassembly E by pinning it with two L-pins (detail 178).

p. Swing Subassembly F up into nose landing gear bay then pin support (detail 23) by pinning it with two L-pins (detail 178) on both sides of Subassembly E, figure 7, sheet 1.

q. Check for correct X plane location, equal feel within ± 0.030 in nose landing gear bay at 74A314208 plates by inserting 0.250 inch feeler gage between L-brackets (detail 176) and 74A314208 plate on right side and between bushing (detail 177) and 74A314208 plate on left side, figure 7, detail C.

r. Check for correct X plane location, equal feel within ± 0.030 at 74A314612 drag brace support area by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support right side and between bushing (detail 272) and 74A314612 drag brace support on left side, figure 8, detail E.

s. If alignment check fails to meet the requirements at 74A314612 drag brace support, shim as required between plate (detail 193) and sleeve fitting (detail 279 or 293), figure 8, detail E.

t. Check for correct X plane location, equal feel within ± 0.030 at 74A314235 trunnion support area by inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support right side and between bushing (detail 272) and 74A314235 trunnion support on the left side, figure 8, detail F.

u. If alignment check fails to meet the requirements of 74A314235 trunnion support, adjust plug (detail 288 or 305) by loosening or tightening nuts (detail 285) and/or shimming as required between plate (detail 191) and sleeve fitting (detail 282 or 301), figure 8, detail E.

v. Secure plate (detail 191) to trunnion support fitting installing cap (detail 283) by attaching it with screw (detail 284), or attach cap (detail 292), if bearing sleeve was removed because of damage, figure 8, detail F.

w. Secure plate (detail 193) to right hand drag brace support installing cap (detail 280) by attaching it with screw (detail 281), figure 8, detail E.

x. Secure plate (detail 190) to trunnion support fitting installing cap (detail 283) by attaching it with screw (detail 287), or attach cap (detail 292), if bearing sleeve was removed because of damage, figure 8, detail F.

y. Secure Subassembly E to airframe.

(1) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 323), figure 7, detail F.

(2) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 325), figure 7, detail F.

(3) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 318), figure 7, detail G.

(4) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 320), figure 7, detail G.

(5) On left side of longeron 74A314619, attach block (detail 315) to plate (detail 190) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(6) On right side of longeron 74A314619, attach block (detail 316) to plate (detail 191) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten

jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(7) On right side of longeron 74A314612, attach block (detail 313) to plate (detail 193) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(8) On left side of longeron 74A314612 attach block (detail 314) to plate (detail 192) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(9) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 7, detail K.

z. Check inside diameter of 74A314663, bearing sleeve.

(1) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

(2) On Subassembly L, turn LIFT knob switch to PARK position.

(3) Remove motor (detail 331) from bracket (detail 43) which is located on right hand side of tool frame.

(4) Install motor (detail 331) through lower 4.00 inch diameter hole in plate (detail 193) locking it in place with Subassembly A, figure 8, detail E.

(5) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

(6) Install indicator (detail 219) with bushing (detail 218) locking it in place with two set screws (detail 158), figure 8, detail E.



Make sure hoses (detail 354) are connected to proper inlets.

(7) Connect hoses (detail 354) to motor (detail 331).

(8) Install blade (detail 220) onto indicator (detail 219), figure 8, detail E.

(9) On Subassembly L, turn LIFT knob switch to DRIVE position and FEED knob switch to MANUAL position. Turn SPINDLE knob switch to FWD L H position, figure 8, detail G.

(10) Sweep inside diameter of left hand drag brace fitting bearing sleeve with indicator (detail 219), figure 8, detail E.

(11) Indicator (detail 219) should read within 0.003 to verify bearing sleeve will clean up, figure 8, detail E.

(12) If bearing sleeve will not clean up, do drag brace sleeve removal and installation, nominal size procedure, this WP.

(13) On Subassembly L, turn FEED knob switch to POWER position. Turn SPINDLE knob switch to OFF position, figure 8, detail G.

(14) Remove indicator (detail 219) from bushing (detail 218) by removing two screws (detail 158), figure 8, detail E.

aa. Do Reaming, this WP.

17. REAMING

NOTE

Left and right procedures the same.

a. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 8, detail E.

b. Pivot Subassembly A aft to gain access to install bushing (detail 270) in upper portion of plate (detail 192).

c. Install stop (detail 382) to hold bushing (detail 270) in place by attaching stop (detail 382) with screw (detail 271), figure 7, detail E.

d. Insert boring bar, SPT-RE374314235TD into bushing (detail 270) and position as far outboard as possible, figure 8, detail H.

e. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 8, detail E.

f. Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 8, detail D.

g. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in detail E. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 8, detail E.

h. Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

i. On Subassembly L, turn LIFT knob switch to PARK position, figure 8, detail G. Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

j. Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 193) locking it in place with Subassembly A, figure 8, detail E.



Make sure hoses (detail 354) are connected to proper inlets.

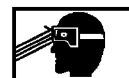
k. Connect hoses (detail 354) to motor (detail 331).

l. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount boring bar, SPT-RE374314235TD into Subassembly A and lock it in place with two set screws (detail 158), figure 8, detail H.

m. Install cutter, SPT24-RE374314235TD between plate (detail 192) and left hand drag brace fitting 74A314612, figure 8, detail K.

n. Slide cutter, SPT24-RE374314235TD onto boring bar, SPT-RE374314235TD securing it with lock screw (detail 4), figure 8, detail K.

o. On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position and turn LIFT knob to DRIVE position. Turn POWER FEED knob switch to L.H., figure 8, detail G.



Beryllium

13



Do not feed too far past relief in bearing sleeve to prevent damage to bottom of bearing sleeve.

p. Power feed cutter, SPT24-RE374314235TD into bearing sleeve, 74A314663 to ream inside diameter to 2.250 +0.0018 -0.0000 diameter, figure 8, detail H.

q. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 8, detail G.

r. Back cutter, SPT24-RE374314235TD out of bearing sleeve, 74A314663 and feed Subassembly A as far to the right side by turning SPINDLE knob switch on Subassembly L to FWD RH. Turn SPINDLE knob switch to OFF position, figure 8, detail G.

s. Remove lockscrew (detail 4) from cutter, SPT24-RE374314235TD and boring bar, SPT-RE374314235TD. Remove cutter SPT24-RE374314235TD from between inboard side of drag brace fitting, 74A314612 and Subassembly E, figure 8, detail K.

t. Feed Subassembly A as far as possible to the right side to remove boring bar, SPT-RE374314235TD from Subassembly A by removing screws (detail 158). Move boring bar, SPT-RE374314235TD as far outboard as possible while remaining in bushing (detail 270), figure 8, detail K.

u. Loosen two set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 8, detail E.

v. Pivot Subassembly A aft to gain access to remove boring bar, SPT-RE374314235TD from bushing (detail 270), figure 8, detail H.

w. Rotate Subassembly A back to it's upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 8, detail E.

x. Do spotfacing, this WP.

18. **SPOTFACING.** Spray mist coolant tank assembly RE874000002-1 is used during spotfacing per (A1-F18AC-SRM-200 WP0004 16).

NOTE

Left and right procedures the same.

a. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 8, detail E.

b. Pivot Subassembly A aft to gain access to insert shaft (detail 213) into bushing (detail 270) and position as far outboard as possible, figure 8, detail J.

c. Rotate Subassembly A back to it's upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 8, detail E.

d. From inboard side of Subassembly E, slide spacer (detail 214) onto shaft (detail 213) securing it with two set screws, figure 8, detail L.

e. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount shaft (detail 213) into Subassembly A and lock it in place with two set screws (detail 158), figure 8, detail J and L.

NOTE

Check cutter, SPT10-RE374314235TD for sharpness after each operation. Cutter may require sharpening.

f. Slide cutter, SPT10-RE374314235TD between Subassembly E and left hand drag brace fitting 74A314612, onto shaft (detail 213). Rotate shaft (detail 213) 90° to lock it in place, figure 8, detail L.

g. Install shim (detail 21) onto cutter, SPT10-RE374314235TD using retaining ring (detail 16) to lock it in place, figure 8, detail L.

h. Set depth of spotfacer, SPT10-RE374314235TD according to the reading taken during paragraph 9, step q, with stop collar (detail 214), detail L.

i. Slide Subassembly A as far as possible to the left side of Subassembly E and still clear plate (detail 190).

j. On Subassembly L, turn LIFT knob switch to PARK position, figure 8, detail G.

k. Remove motor (detail 331) from bracket (detail 43) which is located on right hand side of tool frame.

l. Install motor (detail 331) through lower 4.00 inch diameter hole in plate (detail 193) locking it in place with Subassembly A, figure 8, detail E.



Make sure hoses (detail 354) are connected to proper inlet.

m. Connect hoses (detail 354) to motor (detail 331).

n. On Subassembly L, turn SPINDLE knob switch to FWD L H position and turn FEED knob switch to POWER position. Turn POWER FEED to L.H. position and turn LIFT knob switch to DRIVE position, figure 8, detail G.

o. Power assisted hand feed cutter, SPT10-RE374314235TD to spotface bearing sleeve 74A314663, figure 8, detail J.

p. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 8, detail G.

q. Back cutter, SPT10-RE374314235TD from face of bearing sleeve 74A314663 and feed Subassembly A as far to the right side by turning SPINDLE knob switch on Subassembly L, to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 8, detail G.

r. Loosen two set screws attaching spacer (detail 214) onto shaft (detail 213), figure 8, detail L.

s. Unlock retaining ring (detail 16) and remove it and shim (detail 21) from cutter, SPT10-RE374314235TD, figure 8, detail L.

t. Remove shaft (detail 213) from Subassembly A by removing two set screws (detail 158), figure 8, detail L.

u. Slide spacer (detail 214) from shaft (detail 213), figure 8, detail L.

v. Rotate cutter, SPT10-RE374314235TD 90° on shaft (detail 213) and remove it between drag brace fitting, 74A314612 and Subassembly E, figure 8, detail L.

w. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 8, detail E.

x. Pivot Subassembly A aft to gain access to remove shaft (detail 213) from bushing (detail 270), figure 8, detail J.

y. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 8, detail E.

z. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Remove shaft (detail 213) from Subassembly A, by unscrewing two set screws (detail 158), figure 8, detail J.

aa. Remove Subassembly E from aircraft.

(1) Disconnect hoses (detail 354) from motor (detail 331).

(2) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 190).

(3) On Subassembly L, turn LIFT knob switch to PARK position, figure 8, detail G.

(4) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 193).

(5) Install motor (detail 331) into bracket (detail 43) which is located on lower right side of tool frame, figure 8, detail E.

(6) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

(7) Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334). Remove Subassembly H through lower hole in plate (detail 192),

detail E. Attach Subassembly H to left side of tool frame with knob, (detail 655).

(8) At right hand trunnion support 74A314235, remove screw (detail 284) and cap (detail 283 or 292) from plate (detail 191), figure 8, detail F.

(9) At left hand trunnion support 74A314235, remove screw (detail 287) and cap (detail 283 or 292) from plate (detail 190), figure 8, detail F.

(10) At right hand drag brace support 74A314612, remove screw (detail 281) and cap (detail 280) from plate (detail 193), figure 8, detail E.

(11) On left hand trunnion support 74A314235, remove two nuts (detail 285) holding plug (detail 288 or 305) to plate (detail 190). Remove plug (detail 288 or 305) from inboard side of plate (detail 190), figure 8, detail F.

(12) On left hand trunnion fitting 74A314235, remove retaining screw (detail 322) and jack (detail 323) attached to trunnion fitting, 74A314235. Remove cap screw (detail 324) and clamp (detail 26) from plate (detail 190), figure 7, detail F.

(13) On right hand trunnion fitting 74A314235, remove retaining screw (detail 322) and jack (detail 325) attached to trunnion fitting, 74A314235. Remove cap screw (detail 326) and clamp (detail 27) from plate (detail 191), figure 7, detail F.

(14) On left hand side of longeron 74A314612, remove retaining screw (detail 317) and jack (detail 320) attached to longeron, 74A314612. Remove cap screw (detail 321) and clamp (detail 25) from plate (detail 192), figure 7, detail G.

(15) On right hand side of longeron 74A314612, remove retaining screw (detail 317) and jack (detail 318) attached to longeron, 74A314612. Remove cap screw (detail 319) and clamp (detail 24) from plate (detail 193), figure 7, detail G.

(16) On right hand side of longeron 74A314619, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron, 74A314619. Remove two screws (detail 312) and block (detail 316) from plate (detail 191), figure 7, detail H.

(17) On left hand side of longeron 74A314619, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314619. Remove two screws (detail 312) and block (detail 315) from plate (detail 190), figure 7, detail H.

(18) On left hand side of longeron 74A314612, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314612. Remove two screws (detail 312) and block (detail 314) from plate (detail 192), figure 7, detail J.

(19) On right hand side of longeron 74A314612, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314612. Remove two screws (detail 312) and block (detail 313) from plate (detail 193), figure 7, detail J.

(20) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 7, detail K.

(21) Connect hoses (detail 354) to motor (detail 331).

(22) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 8, detail G.

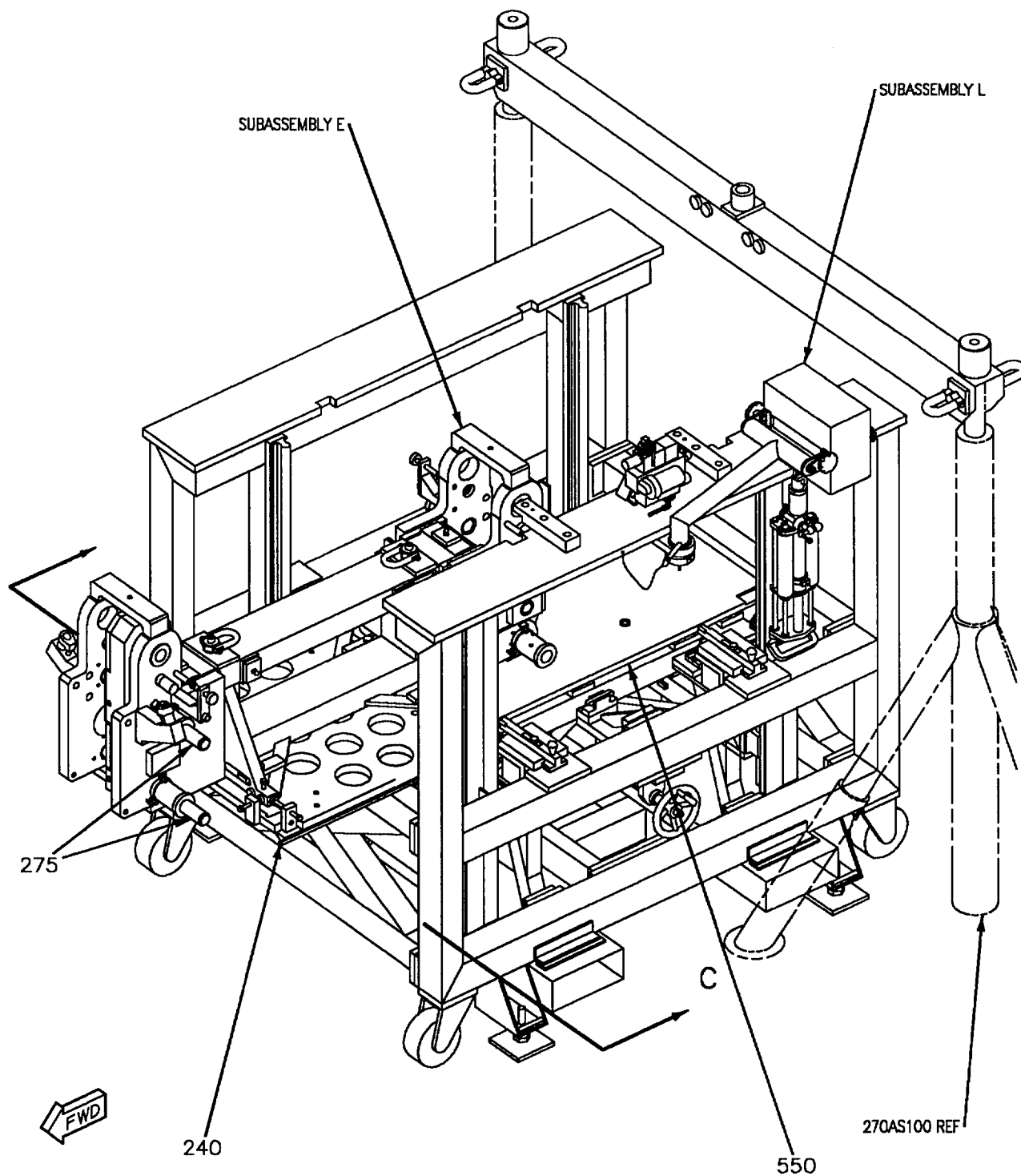
(23) On right side trunnion support 74A314235, remove screw (detail 278) three places and bushing (detail 276) from inboard side of plate (detail 191). Remove sleeve fitting (detail 282, 301 or 387) from outboard side of plate (detail 191), figure 8, detail F.

(24) On right side drag brace fitting 74A314612, remove screw (detail 278) three places and bushing (detail 276) from inboard side of plate (detail 193). Remove sleeve fitting (detail 279, 293 or 383) from outboard side of plate (detail 193), figure 8, detail E.

(25) In left side drag brace area 74A314612, remove screw (detail 273) and washer (detail 274), holding pin bushing (detail 272) from plate (detail 192), figure 8, detail E.

(26) In left side trunnion support area 74A314235, remove screw (detail 273) and washer (detail 274), holding pin bushing (detail 272) onto plate (detail 190), figure 7, detail A.

(27) If repair is complete, do locating fixture removal, this WP.



A

Figure 8. Drag Brace Sleeve Reaming (Sheet 1)

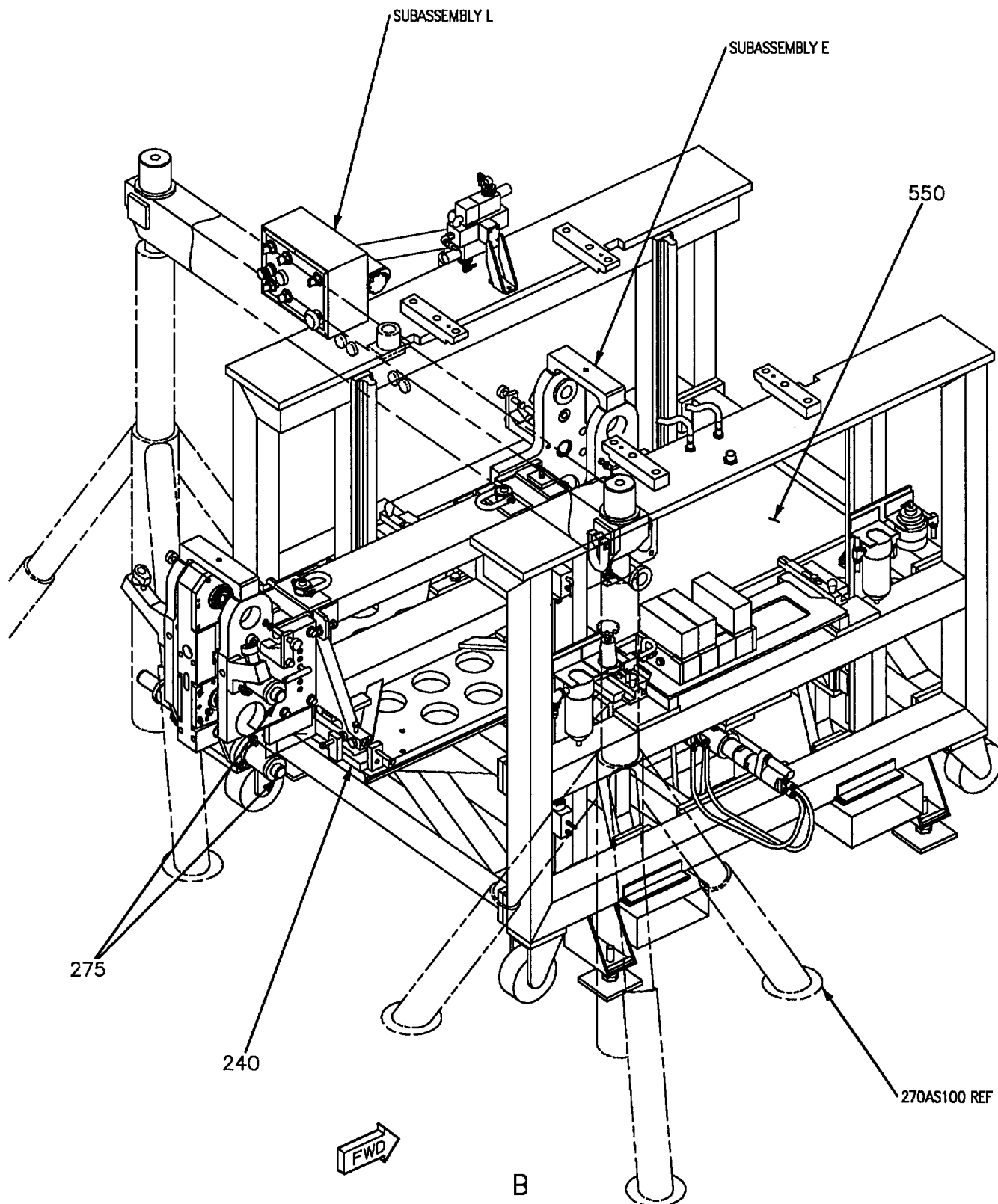


Figure 8. Drag Brace Sleeve Reaming (Sheet 2)

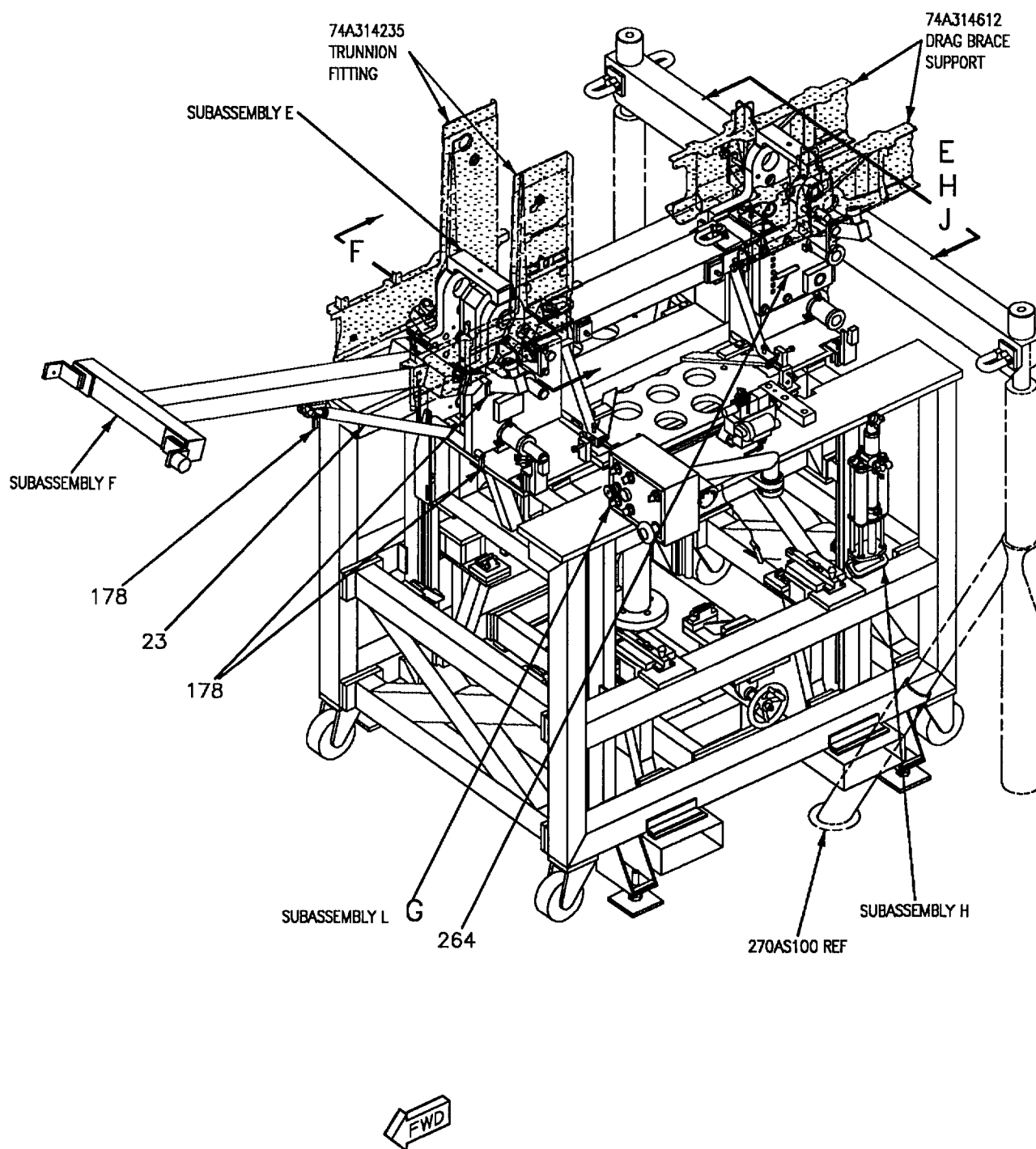
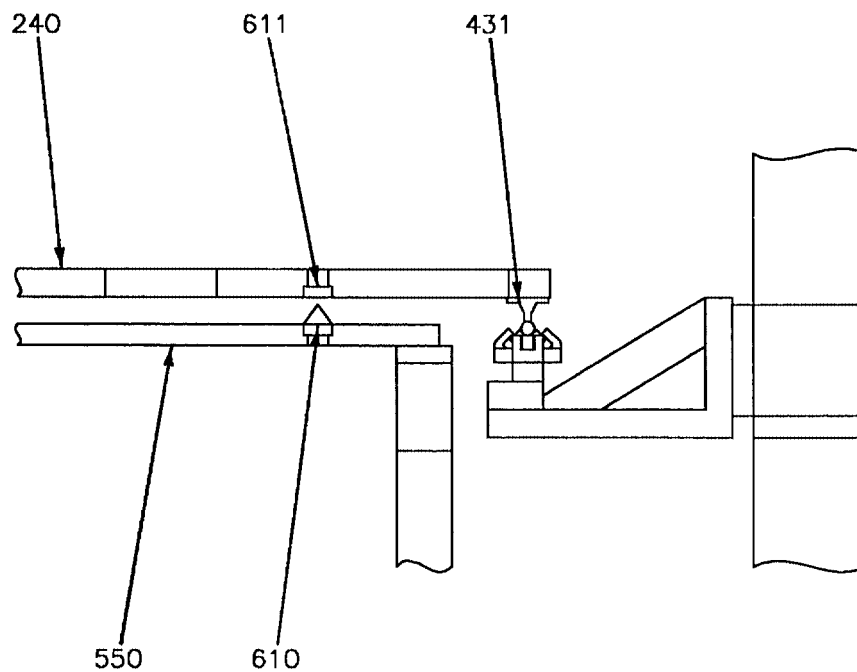
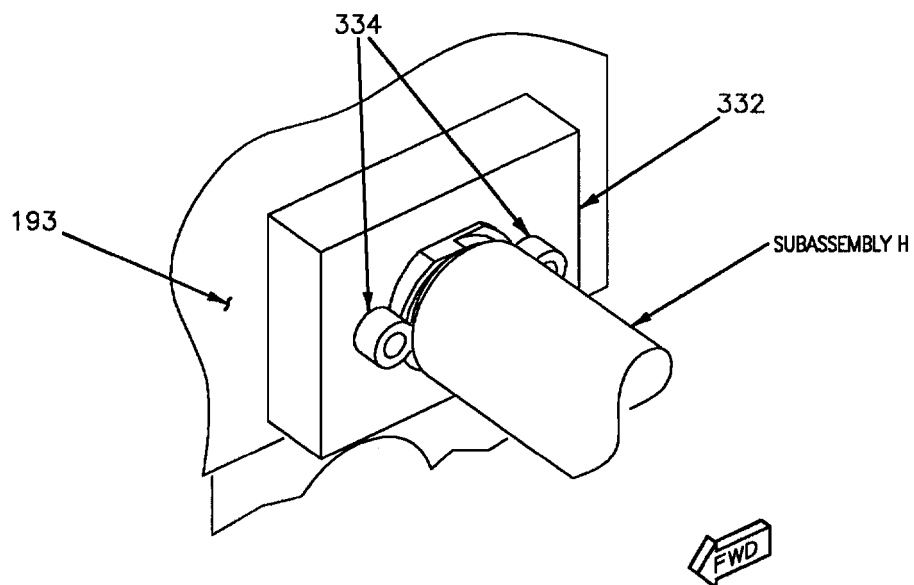


Figure 8. Drag Brace Sleeve Reaming (Sheet 3)



C
LOOKING AFT



D

Figure 8. Drag Brace Sleeve Reaming (Sheet 4)

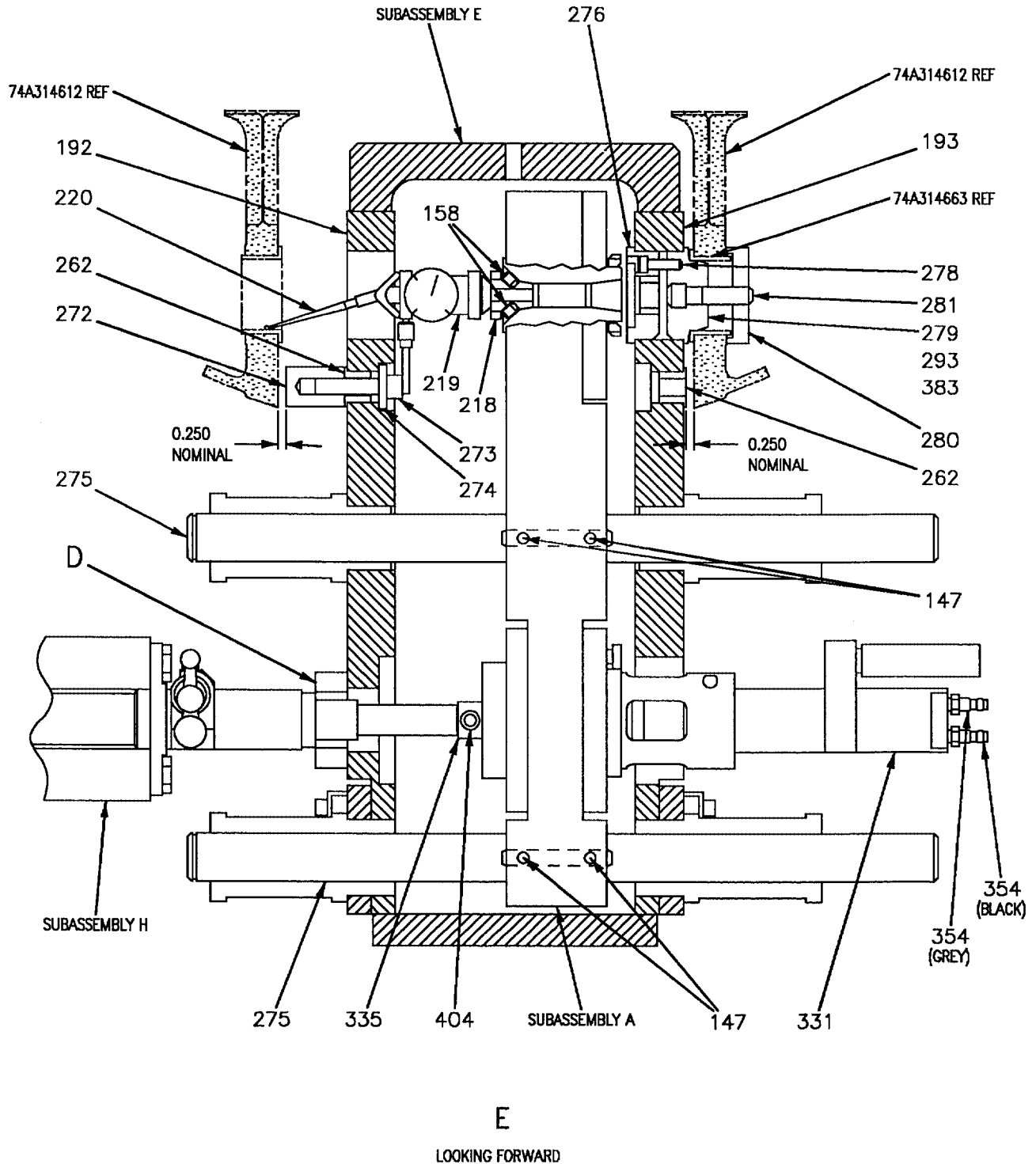


Figure 8. Drag Brace Sleeve Reaming (Sheet 5)

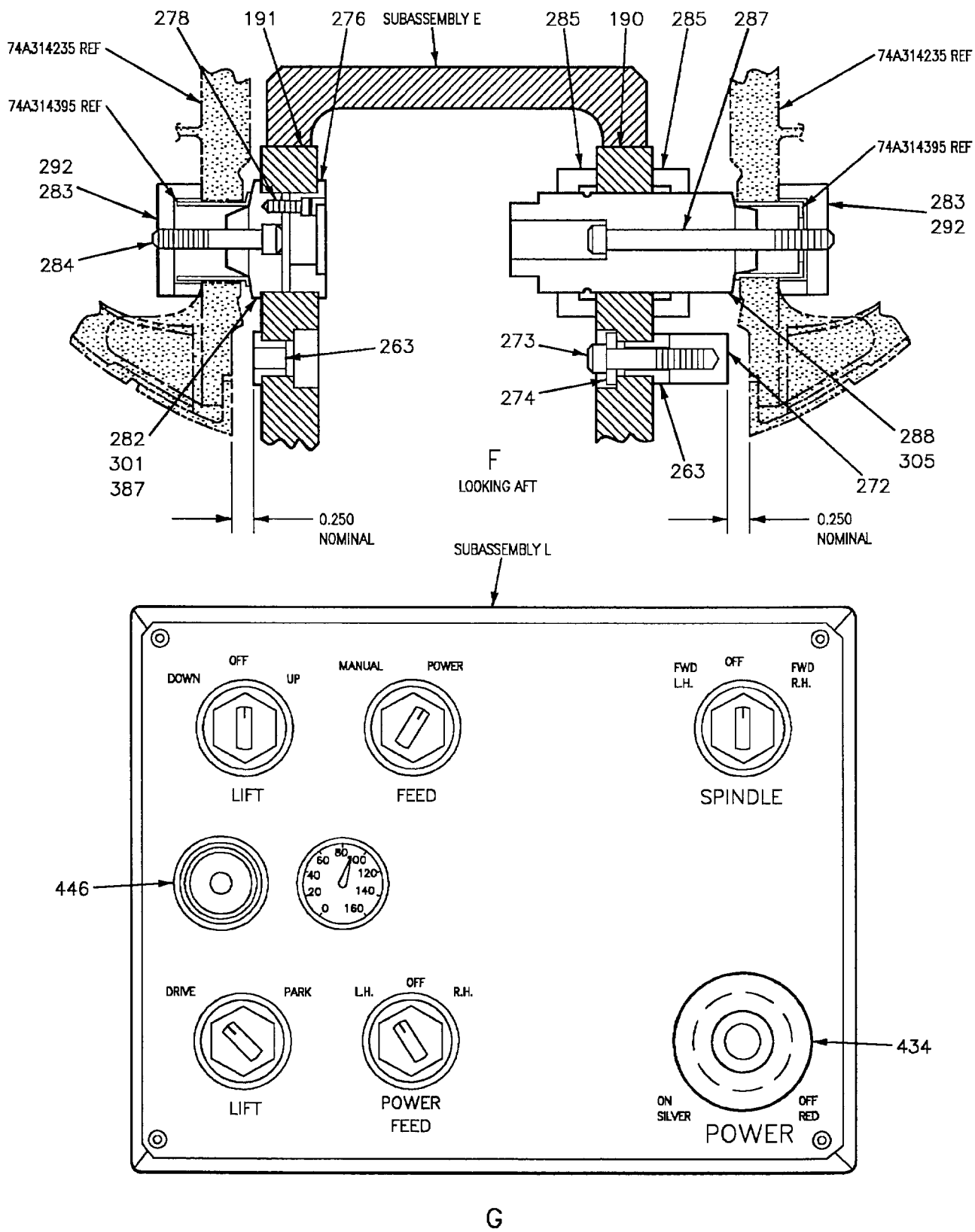
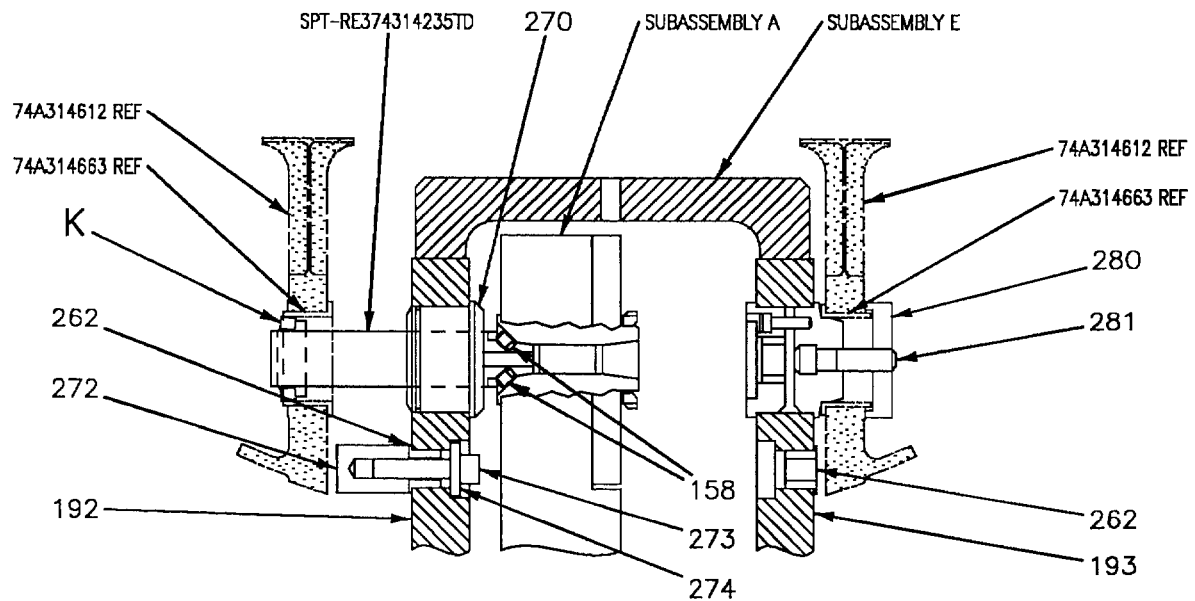
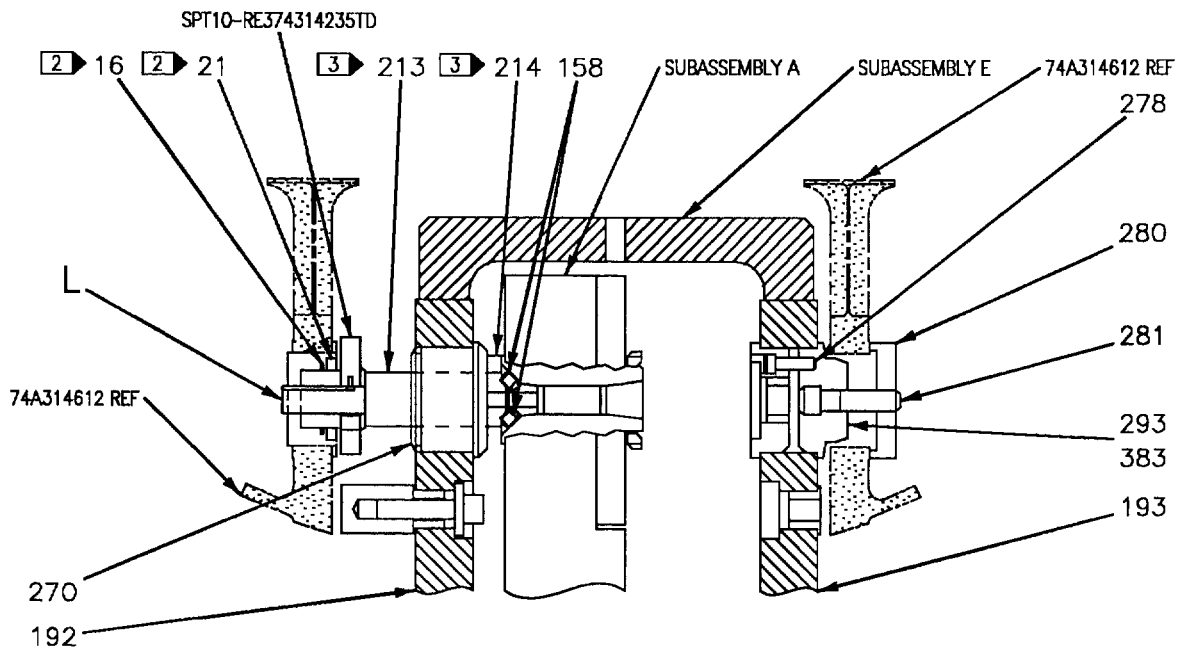


Figure 8. Drag Brace Sleeve Reaming (Sheet 6)



H

LOOKING FORWARD



J

LOOKING FORWARD

Figure 8. Drag Brace Sleeve Reaming (Sheet 7)

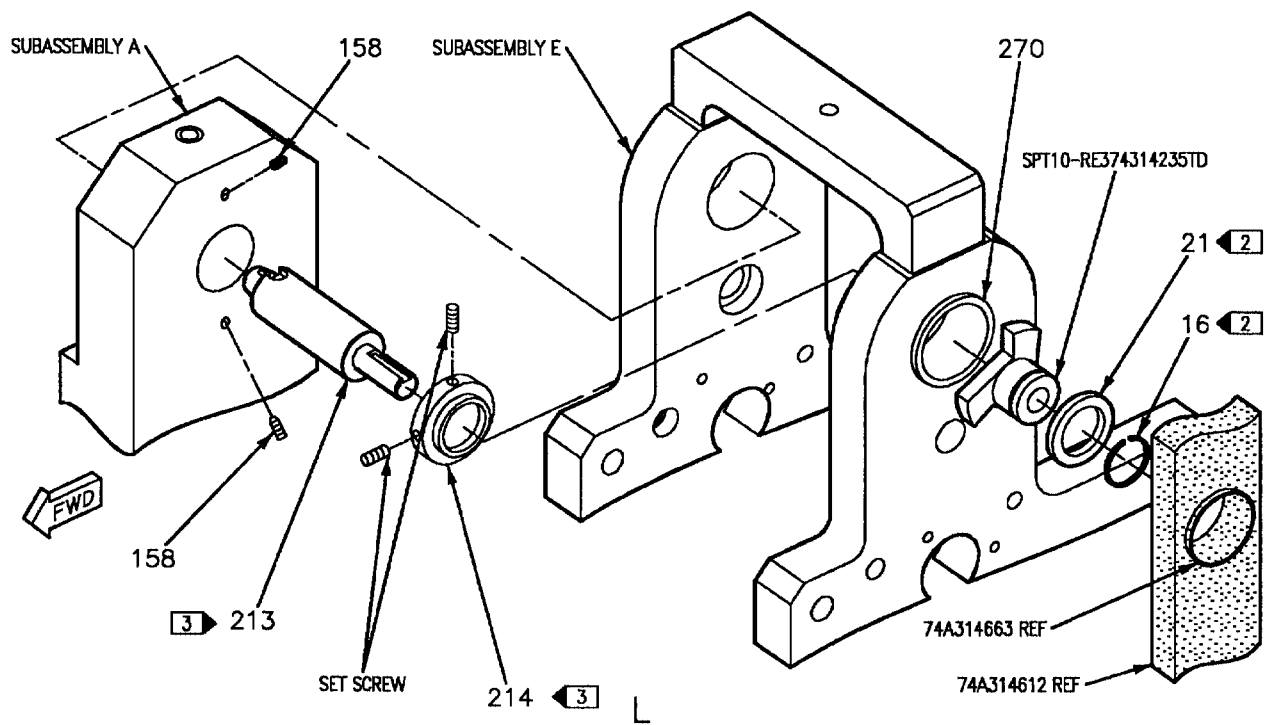
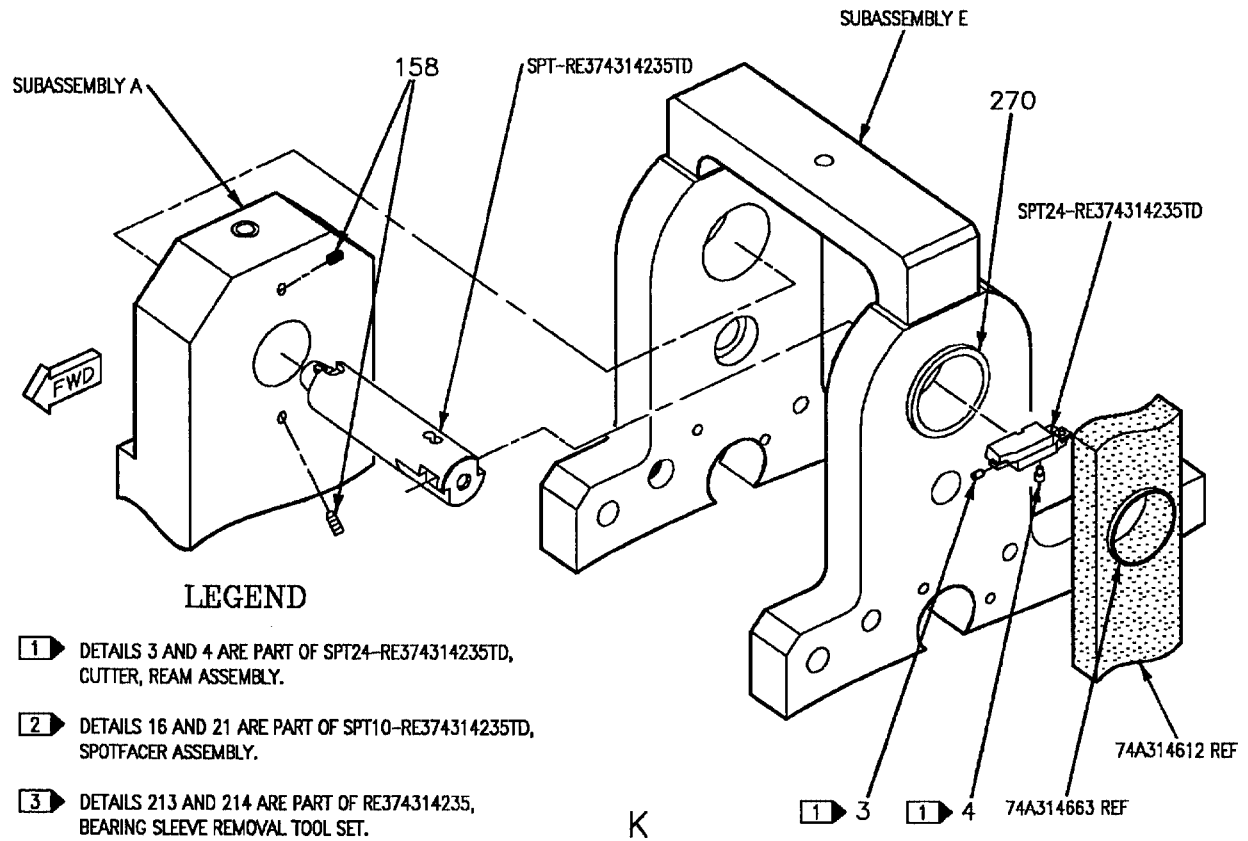


Figure 8. Drag Brace Sleeve Reaming (Sheet 8)








Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing sleeves.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly F	Alignment Frame	Checks for correct X plane location in nose landing gear bay.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
SPT- RE374314235TD 	Boring Bar	Used to align and secure cutter SPT24-RE374314235TD in spot facing on drag brace sleeve.
SPT10- RE374314235TD 	Cutter	Used to spotface trunnion and drag brace bearing sleeve.
SPT24- RE374314235TD 	Cutter	Used to spotface drag brace bearing sleeves, 74A314663.
3 	Adjusting Screw	Used to make adjustments to cutter SPT24-RE374314235TD.
4 	Locking Screw	Used to secure cutter SPT24-RE374314235TD to boring bar (detail 1).
16 	Retaining Ring	Used to hold (detail 21) onto cutter SPT10-RE374314235TD.
20	Welded Assembly	Used to attach (detail 240) and becomes a part of Subassembly E.
21 	Shim	Used to align (detail 213) to inside diameter of 74A314395 bearing sleeve.
23	Support	Pins to Subassembly E with (detail 178) and to Subassembly F with (detail 178) supporting Subassembly F in nose landing gear bay.
43	Bracket	Holds motor (detail 331) on the lower right hand side of the tool frame when not in use on Subassembly E.
147	Set Screws	Used to secure shaft (detail 275) to Subassembly A.
158	Set Screw	Used to lock in place (detail 218) into Subassembly A.
176	L-brackets	Used to check for correct X plane between 74A314208 plate on left side of nose landing gear bay.
177	Bushing	Used to check for correct X plane between 74A314208 plate on right side of nose landing gear bay.

Figure 8. Drag Brace Sleeve Reaming (Sheet 9)



Detail No.	Name	Function
178	L-pins	Aligns support locator (detail 25) in nominal position.
190	Plate	Part of Subassembly E, used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.
213 	Shaft	Used to align and secure SPT10-RE374314235TD in spot facing on drag brace sleeve.
214 	Spacer	Used to gage amount that (detail 21) can take off of drag brace sleeve, 74A314663.
215	Screws	Adjusts center to center distance in right hand drag brace area.
218	Bushing	Attach (detail 219) by locking it into Subassembly A with (detail 158).
219	Indicator	Used to verify if bearing sleeve will clean up.
220	Blade	Used with (detail 218 and 219) in verifying that bearings sleeve will clean up.
240	Plate	Used to support and lift Subassembly E.
242	Adjusting Screws	Used to adjust (detail 279 or 293) into right hand trunnion fitting.
243	Adjusting Screws	Used with (detail 242) to adjust (detail 279 or 293) into right hand trunnion fitting.
244	Clamp	Use to secure Subassembly E to (detail 20) and (detail 240).
245	Bolt	Used to secure (detail 244) to (detail 240).
248	Adjusting Screws	Used to adjust height of Subassembly E from (detail 240).
257	Plate	Used to secure (detail 192 and 193) together, attaching it with (detail 380).
258	Plate	Used to secure (detail 190 and 191) together, attaching it with (detail 380).
262	Bushing	Used to check X plane location in left hand drag brace area.
263	Bushings	Used to check X plane location in left and right hand trunnion area.

Figure 8. Drag Brace Sleeve Reaming (Sheet 10)

Detail No.	Name	Function
264	L-pins	Used to secure (detail 192) and (detail 20) in drag brace area.
267	Screws	Used to lock in place (detail 192) and (detail 20).
270	Bushing	Used to align (detail 213) in (detail 192) and to hold SPT10-RE374314235TD in place.
271	Screw	Used to secure (detail 382) to (detail 190).
272	Holding Pin Bushing	Used to check for correct X plane location in left hand trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
275	Shafts	Used to support Subassembly A in Subassembly E secured with (detail 147).
276	Bushings	Installed into (detail 191 and 193), secured to (detail 279 or 293) with (detail 278).
278	Screws	Used to secure (detail 276) to (detail 279 or 293).
279	Sleeve Fittings	Installed into (detail 191 and 193), secured to (detail 276) with (detail 278).
280	Caps	Used to take up the slack in Z plane in drag brace area. Secured with (detail 281 and 287).
281	Screw	Used to secure (detail 280) to left hand drag brace, 74A314612.
282	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
283	Cap	Used to take up the slack in Z plane in right hand trunnion fitting.
284	Screw	Used to secure (detail 283) to right hand trunnion fitting.
285	Nuts	Used to lock (detail 288 or 305) into (detail 190).
286	Plug	Used to line up left hand drag brace sleeve 74A314663, with (detail 285).
287	Screw	Used to secure (detail 280) and take up slack between 74A314612 and (detail 272) in left side drag brace area.
288	Plug	Used to line up left hand trunnion sleeve 74A314395, with (detail 285).
292	Cap	Used to take up the slack in Z plane in right hand trunnion fitting.

Figure 8. Drag Brace Sleeve Reaming (Sheet 11)

Detail No.	Name	Function
293	Sleeve Fitting	Installed into (detail 193), secured to (detail 276) with (detail 278).
297	Plug	Used to line up left hand drag brace sleeve 74A314663, with (detail 285).
301	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
305	Plug	Used to line up left hand trunnion sleeve 74A314395, with (detail 285).
331	Motor	Used to supply feed to operate Subassembly A
332	Block	Attached to Subassembly E and used as a guide for Subassembly H.
334	Lock Button	Used to lock Subassembly H into place on Subassembly E.
335	Clevis	Used to attach Subassembly H to Subassembly A, secured with (detail 404).
354	Hoses	Used to provide air pressure to motor (detail 331).
382	Stop	Used to hold (detail 270) in place with (detail 271).
383	Sleeve Fitting	Used in place of (detail 293) if it will not fit into drag brace fitting.
387	Sleeve Fitting	Used in place of (detail 301) if it will not fit into trunnion fitting.
404	Shoulder Screw	Used to secure (detail 335) and Subassembly H.
431	Rail Support Assembly	Used to support and move (detail 240) forward and aft.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
478	Fittings	Used to connect hoses (detail 354) to motor (detail 331) when installed on Subassembly A.
550	Lift Platform	Used to lift Subassembly E up or down.
610	Pin	Used to align (detail 550) to (detail 240).
611	Bushing	Used to align (detail 240) to (detail 550).
LEGEND		
<div> <div>1</div> <div>Detail 3 and 4 are part of SPT24-RE374314235TD, Cutter, Ream Assembly.</div> </div> <div> <div>2</div> <div>Detail 16 and 21 are part of SPT10-RE374314235TD, Spotfacer Assembly.</div> </div> <div> <div>3</div> <div>Details are part of RE374314235, N.L.G. Trunnion Drag Brace Supports Tool Set.</div> </div>		

Figure 8. Drag Brace Sleeve Reaming (Sheet 12)

19. TRUNNION BEARING FIRST AND SECOND OVERSIZE SLEEVE INSTALLATION. Figure 9.**20. SET UP.****NOTE**

Left and right procedures the same.

a. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 9, detail H.

b. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support.

c. Install sleeve fitting, (detail 302) 1st oversize or (detail 303) 2nd oversize, by attaching it using screw (detail 278) three places. If unable to install sleeve fitting, (detail 302) 1st oversize or (detail 303) 2nd oversize, install sleeve fitting, (detail 388) 1st oversize or (detail 389) 2nd oversize, figure 9, detail A.

d. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand drag brace fitting, 74A314612.

e. Install sleeve fitting (detail 294) 1st oversize or (detail 295) 2nd oversize, by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting, (detail 294) 1st oversize or (detail 295) 2nd oversize, install sleeve fitting, (detail 384) 1st oversize or (detail 385) 2nd oversize, figure 9, detail B.

f. Place two L-pins (detail 264) in Nom position on plates (detail 192 and 193), figure 9, detail E.

g. Loosen bolt (detail 245) and clamp (detail 244) four places that are positioned on plate (detail 240).

h. Use Adjusting screws (detail 242, 243 and 248) four places figure 9, detail C, so as to engage sleeve fitting, (detail 302) 1st oversize or (detail 303) 2nd oversize. If unable to engage sleeve fitting, (detail 302) 1st oversize or (detail 303) 2nd oversize, engage sleeve fitting, (detail 388) 1st oversize or (detail 389) 2nd oversize into right hand trunnion fitting

74A314235, figure 9, detail A, or (detail 294) 1st oversize or (detail 295) 2nd oversize. If unable to install sleeve fitting (detail 294) 1st oversize or (detail 295) 2nd oversize, install sleeve fitting (detail 384) 1st oversize or (detail 385) 2nd oversize into the right hand drag brace fitting 74A314612, figure 9, detail B.

i. If center to center is off in right hand drag brace fitting, pull L-pins (detail 264) on each side of Subassembly E. Loosen four screws (detail 267) on each side of Subassembly E. Adjust center distance by turning screws (detail 215) on each side of Subassembly E, figure 9, detail E, either by tightening or loosening until sleeve fitting (detail 294) 1st oversize or (detail 295) 2nd oversize can be engaged into bearing sleeve or drag brace fitting. If unable to engage sleeve fitting (detail 302) 1st oversize or (detail 303) 2nd oversize, engage sleeve fitting, (detail 388) 1st oversize or (detail 389) 2nd oversize, figure 9, detail A.

NOTE

Make sure that spacing is within ± 0.030 . If not, engineering disposition has to be obtained for out of dimension repair.

j. Install L-pins (detail 264) into adjustment hole from -0.030 to +0.030 on each side of Subassembly E based upon if forward or aft adjustment was made, figure 9, detail C.

k. Torque screws (detail 267) four places on each side of Subassembly E to 60 ft lbs and clamp welded assembly (detail 20) with spacer (detail 244) with bolt (detail 245) four places, figure 9, detail E.

l. Slide plug (detail 298) 1st oversize or (detail 299) 2nd oversize through 2.751 diameter hole in plate (detail 192) until it engages left hand drag brace fitting. Secure plug (detail 298) 1st oversize or (detail 299) 2nd oversize by locking it in place with two nuts (detail 285), figure 9, detail B.

m. Install Subassembly F onto both sides of Subassembly E by pinning it with two L-pins (detail 178).

n. Swing Subassembly F up into nose landing gear bay, then pin support (detail 23) by pinning it with two L-pins (detail 178) on both sides of Subassembly E, figure 7, sheet 1.

o. Check for correct X plane location, equal feel within ± 0.030 in nose landing gear bay at 74A314208 plates by inserting 0.250 inch feeler gage between L-brackets (detail 176) and 74A314208 plate on right side and between bushing (detail 177) and 74A3142.08 plate on left side, figure 7, detail C.

p. Check for correct X plane location, equal feel within ± 0.030 at 74A314235 trunnion support area by inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support right side and between bushing (detail 272) and 74A314235 trunnion support on left side, figure 9, detail A.

q. If alignment check fails to meet the requirements at 74A314235 trunnion support, shim as required between plate (detail 191) and sleeve fitting (detail 302) 1st oversize or (detail 303) 2nd oversize, figure 9, detail A.

r. Check for correct X plane location, equal feel within ± 0.030 at 74A314612 drag brace support area by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support right side and between bushing (detail 272) and 74A314612 drag brace support on left side, figure 9, detail B.

s. If alignment check fails to meet the requirements of 74A314612 drag brace support, adjust plug (detail 298) 1st oversize or (detail 299) 2nd oversize by loosening or tightening nuts (detail 285) and/or shimming as required between plate (detail 193) and sleeve fitting (detail 294) 1st oversize or (detail 295) 2nd oversize. If unable to install sleeve fitting, (detail 294) 1st oversize or (detail 295) 2nd oversize, install sleeve fitting, (detail 384) 1st oversize or (detail 385) 2nd oversize, figure 9, detail B.

t. Secure plate (detail 191) to trunnion support fitting by installing cap (detail 292) and attaching it with screw (detail 284), figure 9, detail A.

u. Secure plate (detail 192) to left hand drag brace support by installing cap (detail 280) and attaching it with screw (detail 287), figure 9, detail B.

v. Secure Subassembly E to airframe.

(1) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 323), figure 7, detail F.

(2) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 325), figure 7, detail F.

(3) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail

318) into plate (detail 193). Clamp right hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 318), figure 7, detail G.

(4) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 320), figure 7, detail G.

(5) On left side of longeron 74A314619, attach block (detail 315) to plate (detail 190) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(6) On right side of longeron 74A314619, attach block (detail 316) to plate (detail 191) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(7) On right side of longeron 74A314612, attach block (detail 313) to plate (detail 193) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(8) On left side of longeron 74A314612 attach block (detail 314) to plate (detail 192) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(9) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 7, detail K.

w. Do Support Reaming procedure, this WP.

21. SUPPORT REAMING.

NOTE

Left and right procedures the same.

a. First pass reaming.

(1) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 7, detail N.

(2) Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in figure 7, detail A. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 7, detail A.

(3) Loosen upper set screw (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 7, detail A.

(4) Pivot Subassembly A forward to gain access to install bushing (detail 270) in upper portion of plate (detail 190).

(5) Install stop shoulder (detail 382) to hold bushing (detail 270) in place by attaching stop shoulder (detail 382) with screw (detail 271), figure 7, detail E.

(6) Insert driver, SPT6-RE374314235TD into bushing (detail 270) and against bottom of bearing sleeve 74A314395, figure 9, detail F.

(7) Rotate Subassembly A back to its upright position, Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 7, detail A.

(8) Install reamer, SPT 12-RE374314235TD (1st oversize) or SPT14-RE374314235TD (2nd oversize) between plate (detail 190) and left hand trunnion fitting 74A314235, figure 9, detail F.

(9) Slide reamer, SPT 12-RE374314235TD (1st oversize) or SPT14-RE374314235TD (2nd oversize) onto driver, SPT6-RE374314235TD and rotate 90° to lock it in place, figure 9, detail G.

(10) On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD L H position and turn LIFT knob switch to DRIVE position. Turn POWER FEED knob switch to L H, figure 9, detail H.

(11) Power feed reamer, SPT12-RE374314235TD (1st oversize) or SPT14-RE374314235TD (2nd oversize) into hole in left hand trunnion fitting 74A314235 and ream to 2.1315 diameter (1st oversize) or 2.1465 (2nd oversize), figure 9, detail G.

(12) Back reamer, SPT12-RE374314235TD (1st oversize) or SPT14-RE374314235TD (2nd oversize) out of hole in left hand trunnion fitting 74A314235 and feed Subassembly A as far to the right side by turning SPINDLE

knob switch to FWD R. H. Turn SPINDLE knob switch to OFF position, figure 9, detail G.

(13) Unlock reamer, SPT12-RE374314235TD (1st oversize) or SPT14-RE374314235TD (2nd oversize) by rotating 90° and slide it between plate (detail 190) and left hand trunnion fitting 74A314235, figure 9, detail G.

(14) Do second pass reaming, this WP.

b. Second pass reaming.

(1) Install reamer, SPT13-RE374314235TD (1st oversize) or SPT15-RE374314235TD (2nd oversize) between plate (detail 190) and left hand trunnion fitting 74A314235, figure 9, detail G.

(2) Slide reamer, SPT13-RE374314235TD (1st oversize) or SPT15-RE374314235TD (2nd oversize) onto driver SPT6-RE374314235TD and rotate 90° to lock it in place, figure 9, detail G.

(3) On Subassembly L, turn FEED knob switch to FWD L H position and turn LIFT knob switch to DRIVE position. Turn POWER FEED knob switch to L H, figure 9, detail H.

(4) Power feed reamer, SPT13-RE374314235TD (1st oversize) or SPT15-RE374314235TD (2nd oversize) into hole in left hand trunnion fitting 74A314235 and ream to 2.1365 diameter (1st oversize) or 2.1515 diameter (2nd oversize), figure 9, detail G.

(5) Back reamer, SPT 13-RE374314235TD (1st oversize) or SPT15-RE374314235TD (2nd oversize) out of hole in left hand trunnion fitting 74A314235 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R. H. Turn SPINDLE knob switch to OFF position, figure 9, detail G and H.

(6) Unlock reamer, SPT 13-RE374314235TD (1st oversize) or SPT15-RE374314235TD (2nd oversize) by rotating 90° and slide it between plate (detail 190) and left hand trunnion fitting 74A314235, figure 9, detail G.

(7) Feed Subassembly A, as far as possible to the right hand side using feed from Subassembly H, figure 9, detail F.

(8) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 9, detail A.

(9) Pivot Subassembly A forward to gain access to remove driver, SPT6-RE374314235TD from bushing (detail 270), figure 9, detail F.

(10) Rotate Subassembly A back to it's upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 9, detail A.

(11) Remove driver, SPT6-RE374314235TD from Subassembly A by removing two set screws (detail 158) and slide it between plate (detail 190) and left hand trunnion fitting 74A314235, figure 9, detail F.

c. Inspect diameter bore/reamed hole in trunnion fitting 74A314235 to 2.1365 inch (1st oversize) or 2.1515 inch (2nd oversize) with an inside caliper micrometer.



Dry Cleaning Solvent, P-D-680, Type II

25

d. Clean diameter surface of bore/reamed hole in trunnion fitting 74A314235, using dry cleaning solvent.

e. Wipe and dry with clean dry cheesecloth.

f. Set up, Subassembly E before removing.

(1) Attach welded assembly (detail 45) to lift platform (detail 550) by aligning it up with guide pin (detail 614) located on forward end of lift platform (detail 550), both sides. Secure it by installing knob (detail 599), figure 9, detail K.

(2) Attach guide (detail 601) to dovetail slide (detail 606) using two cap screws. Attach dovetail slide to welded assembly (detail 45) with washer (detail 423) and cap screw, figure 9, detail K.

(3) Align guide (detail 604) to dovetail slide (detail 607), by installing two bullet nose dowel pins (detail 608) into bullet nose bushings (detail 609). Secure guide (detail 604) by attaching it with knob (detail 605), figure 9, detail L.

(4) Insert shaft (detail 602) through lower bushing (detail 261) attached to Subassembly E, figure 9, detail E.

g. Remove Subassembly E.

(1) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 7, detail K.

(2) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(3) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(4) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(5) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(6) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace fitting 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 7, detail G.

(7) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace fitting, 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 7, detail G.

(8) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion fitting 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 7, detail F.

(9) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 7, detail F.

(10) On left hand side of drag brace fitting 74A314612, remove screw (detail 287) and cap (detail 280) from sleeve fitting (detail 298) 1st oversize or (detail 299) 2nd oversize, figure 9, detail B.

(11) On right hand side of drag brace fitting 74A314612, remove screw (detail 281) and cap (detail 280) from plug (detail 294 or 295), figure 9, detail B.

(12) On right side of trunnion fitting 74A314235, remove screw (detail 284) and cap (detail 292) from sleeve fitting (detail 302 or 303), figure 9, detail A.

(13) On left side of drag brace area 74A314612, remove two nuts (detail 285) holding sleeve fitting (detail 298) 1st oversize or (detail 299) 2nd oversize in 2.751 diameter hole in plate (detail 292), figure 9, detail B.

(14) In left side drag brace area 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 9, detail B.

(15) In left side trunnion support area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 9, detail A.

(16) Disconnect hoses (detail 354) from motor (detail 331).

(17) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 190).

(18) On Subassembly L, turn LIFT knob switch to PARK position, figure 9, detail H.

(19) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 191).

(20) Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame.

(21) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

(22) Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334). Remove Subassembly H through lower hole in plate (detail 192), figure 7, detail A. Attach Subassembly H to left side of tool frame with knob, (detail 655).

(23) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 9, detail H.

(24) Check that shaft (detail 602) is sitting securely onto guide (detail 601) on both sides of lift platform (detail 550), forward end. If not, loosen or tighten

top cap screw (detail 667) on welded assembly (detail 45) to raise or lower dovetail slide (detail 606) until shaft (detail 602) is securely sitting on guide (detail 601).

(25) On the aft end of lift platform (detail 550) check to make sure that shaft (detail 285) is sitting securely onto guide (detail 604) on both sides of lift platform (detail 550). If not, loosen or tighten top outboard cap screw (detail 667) on plate (detail 603) to raise or lower dovetail slide (detail 607) until shaft (detail 285) is securely sitting on guide (detail 607).

22. OVERSIZE BEARING SLEEVE INSTALLATION.

NOTE

Left and right procedures the same.

a. Machine outside diameter of bearing sleeve, 74A314395 for 0.0015 to 0.0040 interference fit in hole in trunnion fitting, 74A314235.

(1) Attach support (detail 12) to Subassembly E with cap screw (detail 668) and washer (detail 669), figure 5, detail A.



Sealing Compound, High Temperature, MIL-S-83430

26

(2) Install sleeve fitting (detail 127) into bearing sleeve, 74A314395-2003 (1st oversize) or 74A314395-2005 (2nd oversize). Apply fillet seal around peripheral of bearing sleeve. For application of fillet seal (A1-F18AC-SRM-200, WP011 00).

(3) Insert threaded stud (detail 128) with washer (detail 144) and nut (detail 143) through ENERPAC RCH #202 cylinder and line up with hole in trunnion fitting 74A314235. Place on support (detail 12), figure 5, detail A.

(4) On Subassembly L, push silver button (detail 434) in to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until threaded stud (detail 128) lines up with hole in trunnion fitting 74A314235. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 9, detail H.

(5) Insert threaded stud (detail 128) with washer (detail 144) and nut (detail 143) and ENERPAC RCH #202 cylinder through sleeve fitting (detail 127), figure 5, detail A.

(6) Screw cap (detail 126) onto threaded stud (detail 128) from outboard side taking up the slack, figure 5, detail A.

(7) Energize cylinder to install bearing sleeve 74A314395 into trunnion fitting 74A314235, figure 5, detail A.

(8) Remove threaded stud (detail 128), washer (detail 144), and nut (detail 143) from ENERPAC RCH #202 cylinder, figure 5, detail A.

(9) Remove ENERPAC RCH #202 cylinder from support (detail 12), figure 5, detail A.

(10) Remove cap screw (detail 668) and washer (detail 669), holding support (detail 12) to Subassembly E. Remove support (detail 12) from Subassembly E, figure 5, detail A.

b. Reinstall Subassembly E.

(1) On Subassembly L, push silver button (detail 434) in to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 9, detail H.

(2) Install holding pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left hand trunnion support area, figure 9, detail A.

(3) Install holding pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left hand drag brace area, figure 9, detail B.

(4) Secure plate (detail 191) to trunnion support fitting by installing cap (detail 292) and attaching it with screw (detail 284), figure 9, detail.

(5) Slide plug (detail 298) 1st oversize or (detail 299) 2nd oversize through 2.751 diameter hole in plate (detail 192) until it engages left hand drag brace fitting. Secure plug (detail 298) 1st oversize or (detail 299) 2nd oversize by locking it in place with two nuts (detail 285), figure 9, detail B.

(6) Secure left hand drag brace, 74A314612 fitting by installing cap (detail 280) and attaching it with screw (detail 287), figure 9, detail B.

(7) Secure plate (detail 193) to right hand drag brace, 74A314612 fitting by installing cap (detail 280) and attaching it with screw (detail 281), figure 9, detail B.

(8) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 323), figure 7, detail F.

(9) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion fitting, 74A314235 between retaining screw (detail 322) and jack (detail 325), figure 7, detail F.

(10) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 318), figure 7, detail G.

(11) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace fitting, 74A314612 between retaining screw (detail 317) and jack (detail 320), figure 7, detail G.

(12) On left side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(13) On right side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(14) On left side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(15) On right side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(16) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 7, detail K.

(17) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 7, detail N.

(18) Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in figure 7, detail A. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 7, detail A.

(19) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

(20) On Subassembly L, turn LIFT knob switch to PARK position, figure 9, detail H. Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

(21) Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 191) locking it in place with Subassembly A.



Make sure hoses (detail 354) are connected to proper inlets.

(22) Connect hoses (detail 354) to motor (detail 331).

c. Check inside diameter of 74A314395 Bearing Sleeve.

(1) Slide Subassembly A as far as possible to the left side of Subassembly E and still clear plate (detail 190).

(2) On Subassembly L, turn LIFT knob switch to PARK position, figure 9, detail H.

(3) Remove motor (detail 331) from bracket (detail 43) which is located on right hand side of tool frame.

(4) Install motor (detail 331) through lower 4.00 inch diameter hole in plate (detail 191) locking it in place with Subassembly A.



Make sure hoses (detail 354) are connected to proper inlets.

(5) Connect hoses (detail 354) to motor (detail 331).

(6) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 191).

(7) Install indicator (detail 219) with bushing (detail 218) locking it in place with two set screws (detail 158), figure 7, detail A.

(8) Install blade (detail 220) onto indicator (detail 219), figure 7, detail A.

(9) On Subassembly L, turn LIFT knob switch to DRIVE position and turn FEED knob switch to MANUAL position. Turn SPINDLE knob switch to FWD L H position, figure 9, detail H.

(10) Sweep inside diameter of left hand trunnion fitting bearing sleeve with indicator (detail 219), figure 7, detail A.

(11) Indicator (detail 219) should read within 0.003 to verify bearing sleeve will cleanup, figure 7, detail A.

(12) If bearing sleeve will not clean up, do trunnion bearing sleeve removal and installation, nominal size procedure, this WP.

(13) On Subassembly L, turn FEED knob switch to POWER position. Turn SPINDLE knob switch to OFF position, figure 9, detail H.

(14) Remove indicator (detail 219) from bushing (detail 218) by removing two screws (detail 158), figure 7, detail A.

23. SLEEVE REAMING.

NOTE

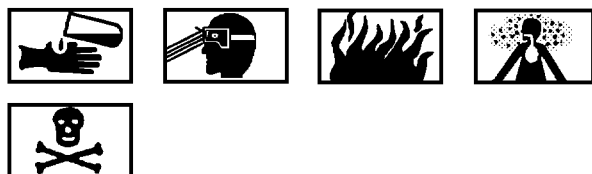
Left and right procedures the same.

a. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount drive, SPT6-RE374314235TD from out board side of trunnion fitting 74A314235, through bushing (detail 190) and into Subassembly A and lock it in place with two set screws (detail 158), figure 9, detail F.

b. Install reamer, SPT23-RE374314235TD between plate (detail 190) and left hand trunnion fitting 74A314235, figure 7, detail M.

c. Slide reamer, SPT23-RE374314235TD onto driver SPT6-RE374314235TD and rotate 90° to lock it in place, figure 7, detail M.

d. On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position. Turn POWER FEED knob switch to LH, figure 9, detail H.



Beryllium

13



Do not feed too far past relief in bearing sleeve to prevent damage to bottom of bearing sleeve.

e. Power feed reamer, SPT23-RE374314235TD into bearing sleeve 74A314395 to ream inside diameter to 1.8750 +0.0016 -0.0000 diameter, figure 7, detail M.

f. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 9, detail H.

g. Back reamer, SPT23-RE374314235TD out of bearing sleeve 74A314395 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 9, detail H.

h. Remove reamer, SPT23-RE374314235TD from between inboard side of trunnion fitting 74A314235 and Subassembly E, figure 7, detail M.

i. Remove driver, SPT6-RE374314235TD from Subassembly A by removing two set screws (detail 158) and slide it between plate (detail 190) and left hand trunnion fitting 74A314235, figure 7, detail M.

j. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 9, detail A.

k. Pivot Subassembly A forward to gain access to remove driver, SPT6-RE374314235TD from bushing (detail 270), figure 9, detail F.

l. Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 9, detail A.

24. **SPOTFACING.** Spray mist coolant tank assembly RE874000002-1, is used during spotfacing per (A1-F18AC-SRM-200 WP004 16).

NOTE

Left and right procedures the same.

a. Slide Subassembly A as far as possible to the right hand side of Subassembly E.

b. Remove screw (detail 271) securing holding stop (detail 382) onto plate (detail 192), figure 9, detail D.

c. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 9, detail A.

d. Pivot Subassembly A forward to gain access to install shaft (detail 213) into bushing (detail 270) and against bottom of bearing sleeve 74A314395, figure 7, detail P.

e. Attach holding stop (detail 382) to plate (detail 192) using screw (detail 271), figure 9, detail D.

f. Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 9, detail A.

g. From inboard side of Subassembly E, slide spacer (detail 214) onto shaft (detail 213) securing it with two set screws, figure 7, detail R.

h. Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 7, detail N.

i. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in figure 7, detail A. Secure shaft end or Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 7, detail A.

j. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount shaft (detail 213) into Subassembly A and lock it in place with two set screws (detail 158), figure 7, detail P.

NOTE

Check cutter, SPT10-RE374314235TD for sharpness after each operation. Cutter may require resharping.

k. Slide cutter, SPT10-RE374314235TD between Subassembly E and left hand trunnion fitting, 74A314235 onto shaft (detail 213). Rotate shaft (detail 213) 90° to lock it in place. figure 7, detail R.

l. Install shim (detail 21) onto cutter, SPT10-RE374314235TD using retaining ring (detail 16) to lock it in place, figure 7, detail R.

m. Set depth of spotfacer SPT10-RE374314235TD according to the reading taken during paragraph 9, step q, with stop collar (detail 214), figure 7, detail R.

n. Slide Subassembly A as far as possible to the left side of Subassembly E and still clear plate (detail 190).

o. On Subassembly L, turn LIFT knob switch to PARK position, figure 7, detail S.

p. Remove motor (detail 331) from bracket (detail 43) which is located on right hand side of tool frame.

q. Install motor (detail 331) through lower 4.00 inch diameter hole in plate (detail 191) locking it in place with Subassembly A, figure 7, detail A.



Make sure hoses (detail 354) are connected to proper inlets.

r. Connect hoses (detail 354) to motor (detail 331).

s. On Subassembly L, turn SPINDLE knob switch to FWD L H position and turn FEED knob switch to POWER position. Turn POWER FEED to L. H. position, figure 7, detail S.

t. Power assisted hand feed cutter, SPT10-RE374314235TD to spotface bearing sleeve, 74A314395, figure 7, detail P.

u. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 7, detail S.

v. Back cutter, SPT10-RE374314235TD from face of bearing sleeve 74A314395 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 7, detail S.

w. Loosen two set screws attaching spacer detail 214) onto shaft (detail 213), figure 7, detail R.

x. Unlock retaining ring (detail 16) and remove it and shim (detail 25) from cutter, SPT10-RE374314235TD, figure 7, detail R.

y. Rotate cutter, SPT10-RE374314235TD 90° on shaft (detail 213) and remove it between drag brace fitting 74A314612 and Subassembly E, figure 7, detail P and R.

z. Remove shaft (detail 213) from Subassembly A by removing two set screws (detail 158). Unlock cutter, SPT10-RE374314235TD by rotating 90° and slide it between plate (detail 190) and left hand trunnion fitting, 74A314235, figure 7, detail R.

aa. Slide spacer (detail 214) from shaft (detail 213), figure 7, detail R.

ab. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A. Pivot Subassembly A forward to gain access to remove shaft (detail 213), figure 7, detail R.

ac. Rotate Subassembly A back to its upright position. Install (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 9, detail A.

ad. Remove Subassembly E.

(1) Disconnect hoses (detail 364) from motor (detail 331).

(2) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 190).

(3) On Subassembly L, turn LIFT knob switch to PARK position, figure 9, detail H.

(4) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 191).

(5) Install motor (detail 331) into bracket (detail 43) which is located on lower right side of tool frame.

(6) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

(7) Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334). Remove Subassembly H through lower hole in plate (detail 192). Attach Subassembly H to left side of tool frame with knob, (detail 655).

(8) At right hand trunnion support 74A314235, remove screw (detail 284) and cap (detail 292) from plate (detail 191), figure 9, detail A.

(9) At left hand trunnion support 74A314612, remove screw (detail 287) and cap (detail 280) from plate (detail 192), figure 9, detail B.

(10) At right hand drag brace support 74A314612, remove screw (detail 281) and cap (detail 280) from plate (detail 193), figure 9, detail B.

(11) On left hand drag brace support 74A314612, remove two nuts (detail 285) holding plug (detail 298 or 299) to plate (detail 192). Remove plug (detail 298 or 299) from inboard side of plate (detail 192), figure 9, detail B.

(12) On left hand trunnion fitting 74A314235, remove retaining screw (detail 322) and jack (detail 323) attached to trunnion fitting, 74A314235. Remove cap screw (detail 324) and clamp (detail 26) from plate (detail 190), figure 7, detail F.

(13) On right hand trunnion fitting 74A314235, remove retaining screw (detail 322) and jack (detail 325) attached to trunnion fitting, 74A314235. Remove cap screw (detail 326) and clamp (detail 27) from plate (detail 191), figure 7, detail F.

(14) On left hand side of longeron 74A314235, remove retaining screw (detail 317) and jack (detail 320) attached to longeron, 74A314612. Remove cap screw (detail 321) and clamp (detail 25) from plate (detail 192), figure 7, detail G.

(15) On right hand side of longeron 74A314612, remove retaining screw (detail 317) and jack (detail 318) attached to longeron, 74A314612. Remove cap screw (detail 319) and clamp (detail 24) from plate (detail 193), figure 7, detail G.

(16) On left hand side of longeron 74A314619, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron, 74A314619. Remove two screws (detail 312) and block (detail 316) from plate (detail 191), figure 7, detail H.

(17) On right hand side of longeron 74A314619, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314619. Remove two screws (detail 312) and block (detail 315) from plate (detail 190), figure 7, detail H.

(18) On left hand side of longeron 74A314612, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314612. Remove two screws (detail 312) and block (detail 314) from plate (detail 192), figure 7, detail J.

(19) On right hand side of longeron 74A314612, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314612. Remove two screws (detail 312) and block (detail 313) from plate (detail 193), figure 7, detail J.

(20) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 7, detail K.

(21) Connect hoses (detail 354) to motor (detail 331).

(22) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 9, detail H.

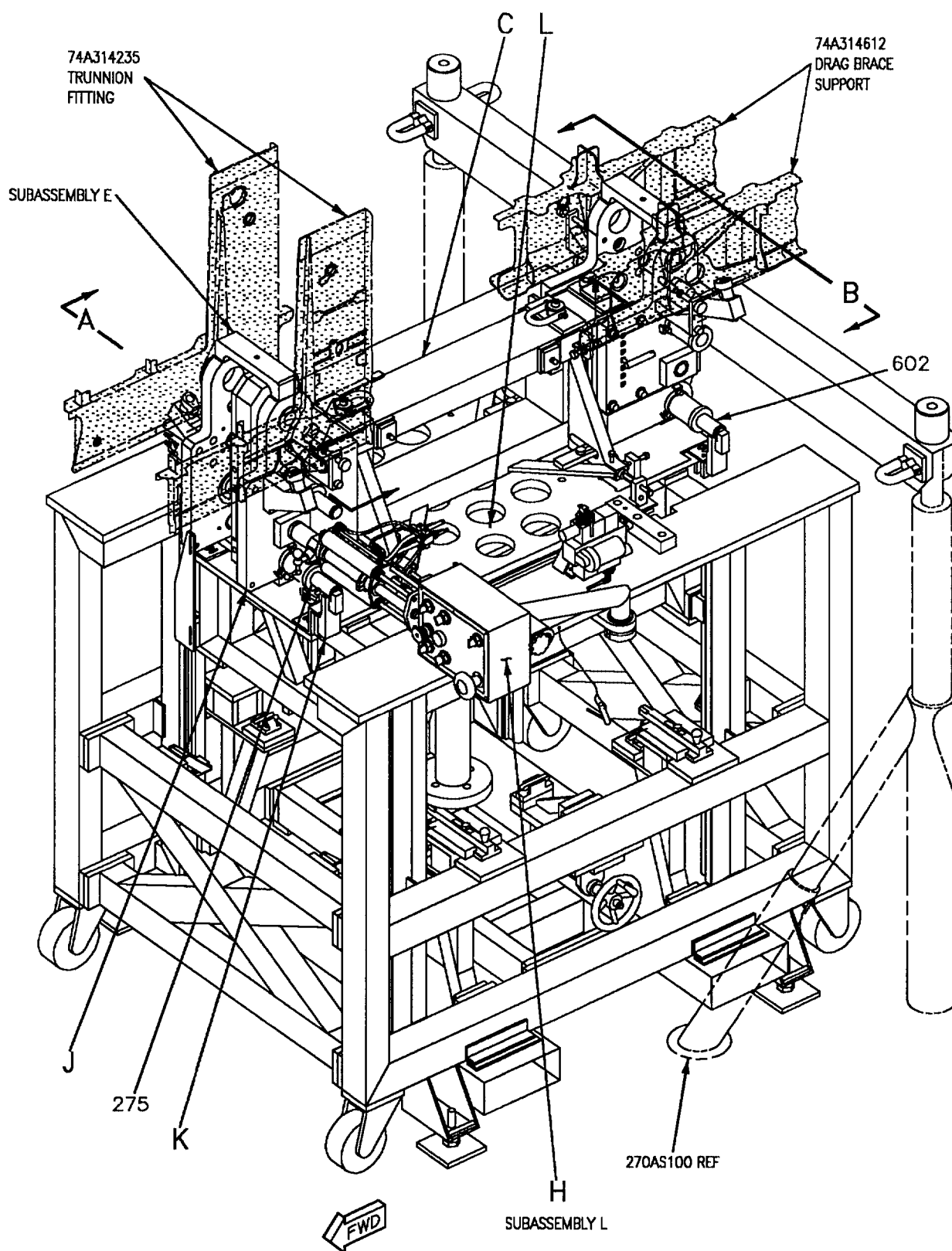
(23) On right side trunnion support 74A314235, remove screw (detail 273) three places and bushing (detail 276) from inboard side of plate (detail 191). Remove sleeve fitting (detail 302, 303, 388 or 389) from outboard side of plate (detail 191), figure 9, detail A.

(24) On right side drag brace fitting 74A314612, remove screw (detail 278) three places and bushing (detail 276) from inboard side of plate (detail 193). Remove sleeve fitting (detail 294, 295, 384 or 385) from outboard side of plate (detail 193), figure 9, detail B.

(25) In left side drag brace area 74A314612, remove screw (detail 273) and washer (detail 274), holding pin bushing (detail 272) onto plate (detail 192), figure 9, detail B.

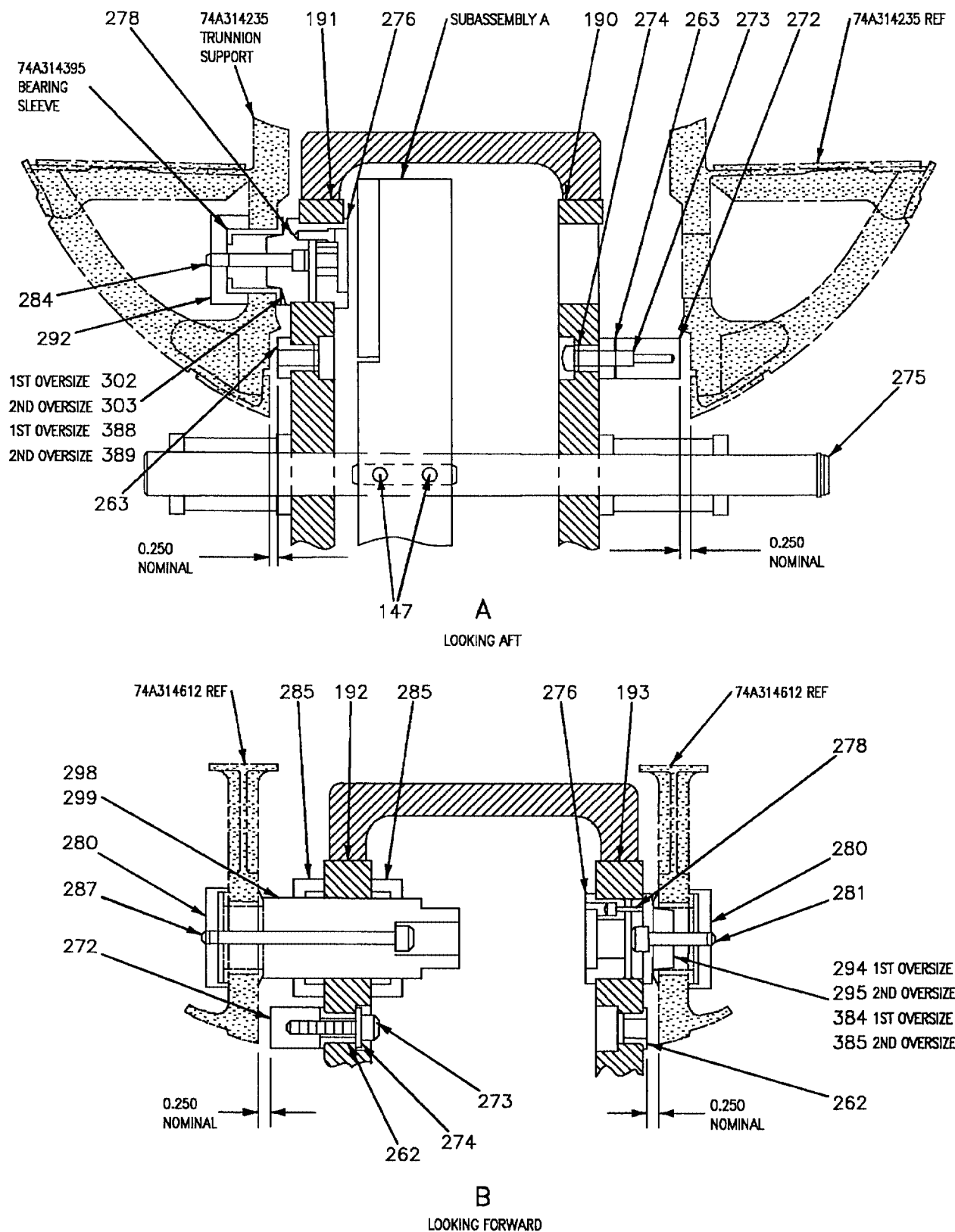
(26) In left side trunnion support area 74A314235, remove screw (detail 273) and washer (detail 274), holding pin bushing (detail 272) onto plate (detail 190), figure 9, detail A.

(27) If repair is complete, do locating fixture removal, this WP.



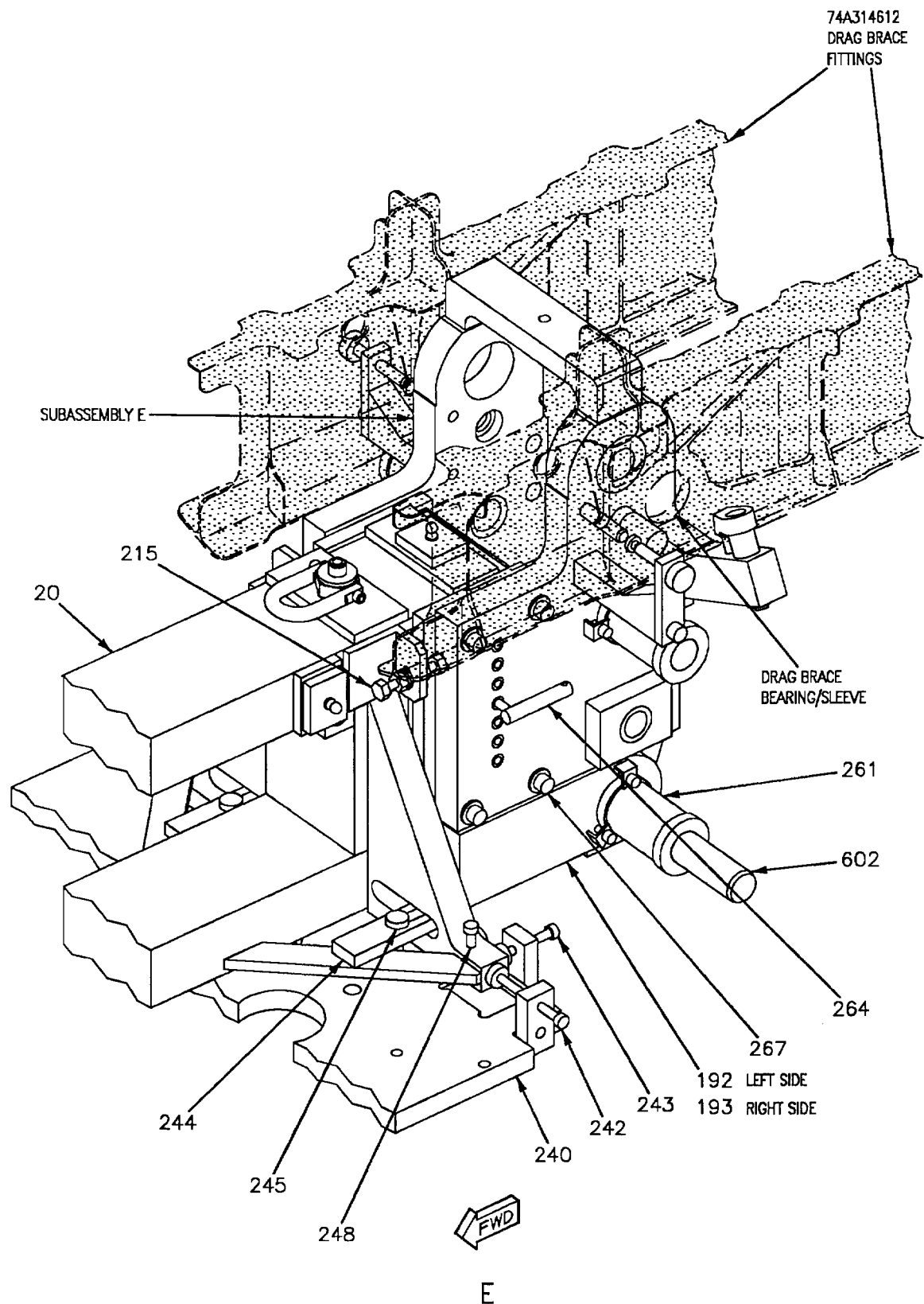
18AC-SRM-221-(123-1)02-CATI

Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 1)



18AC-SRM-221-(123-2)02-CATI

Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 2)



18AC-SRM-221-(123-4)02-CATI

Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 4)

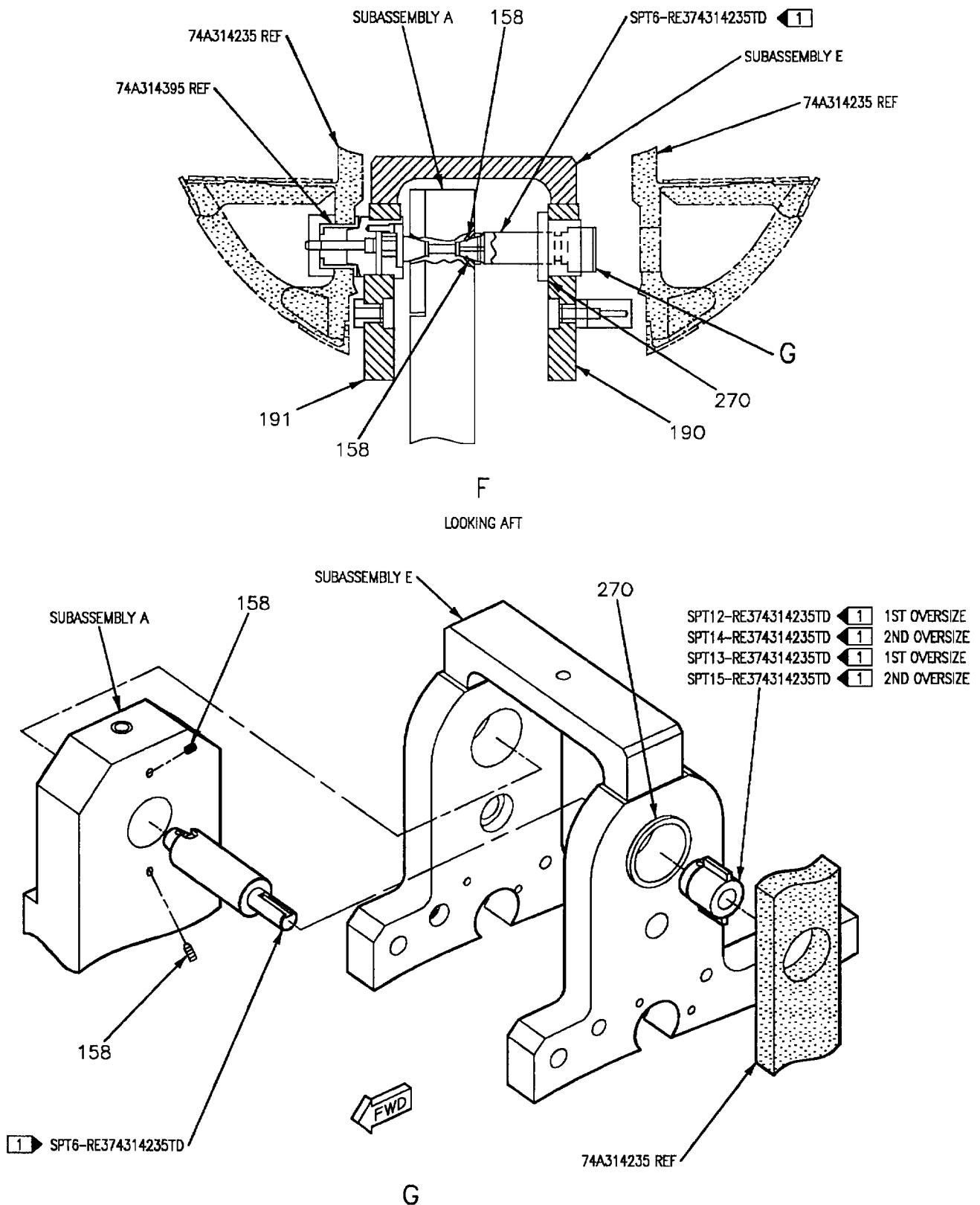
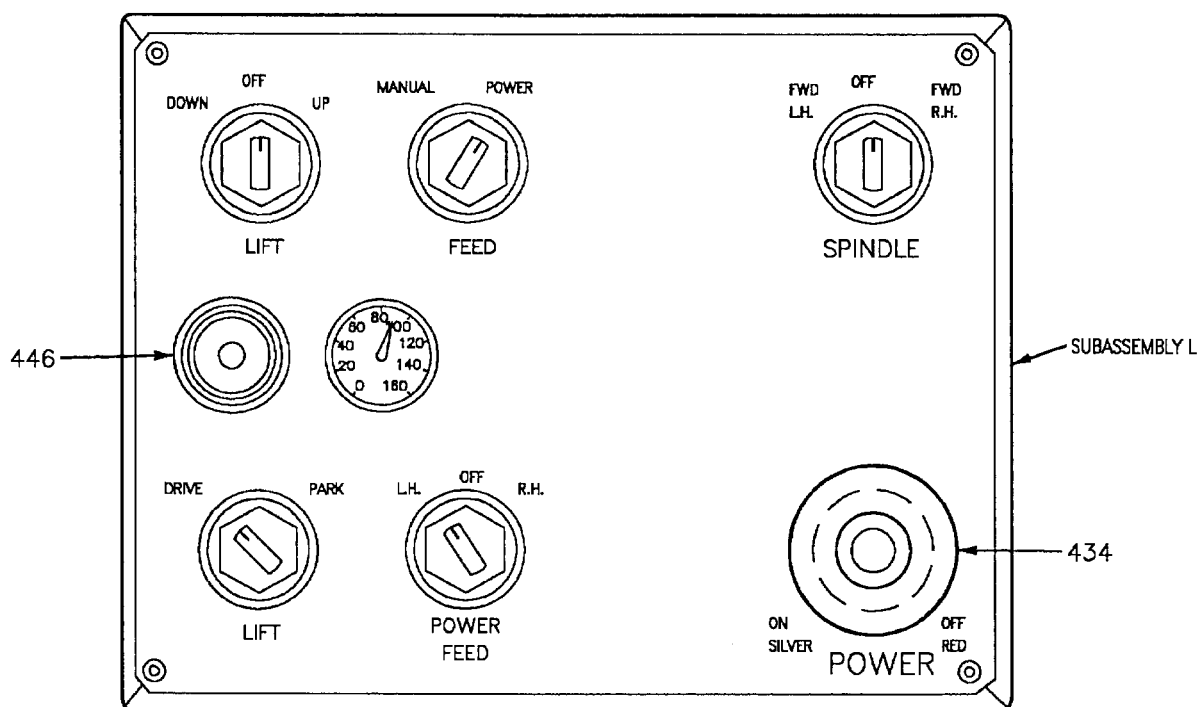
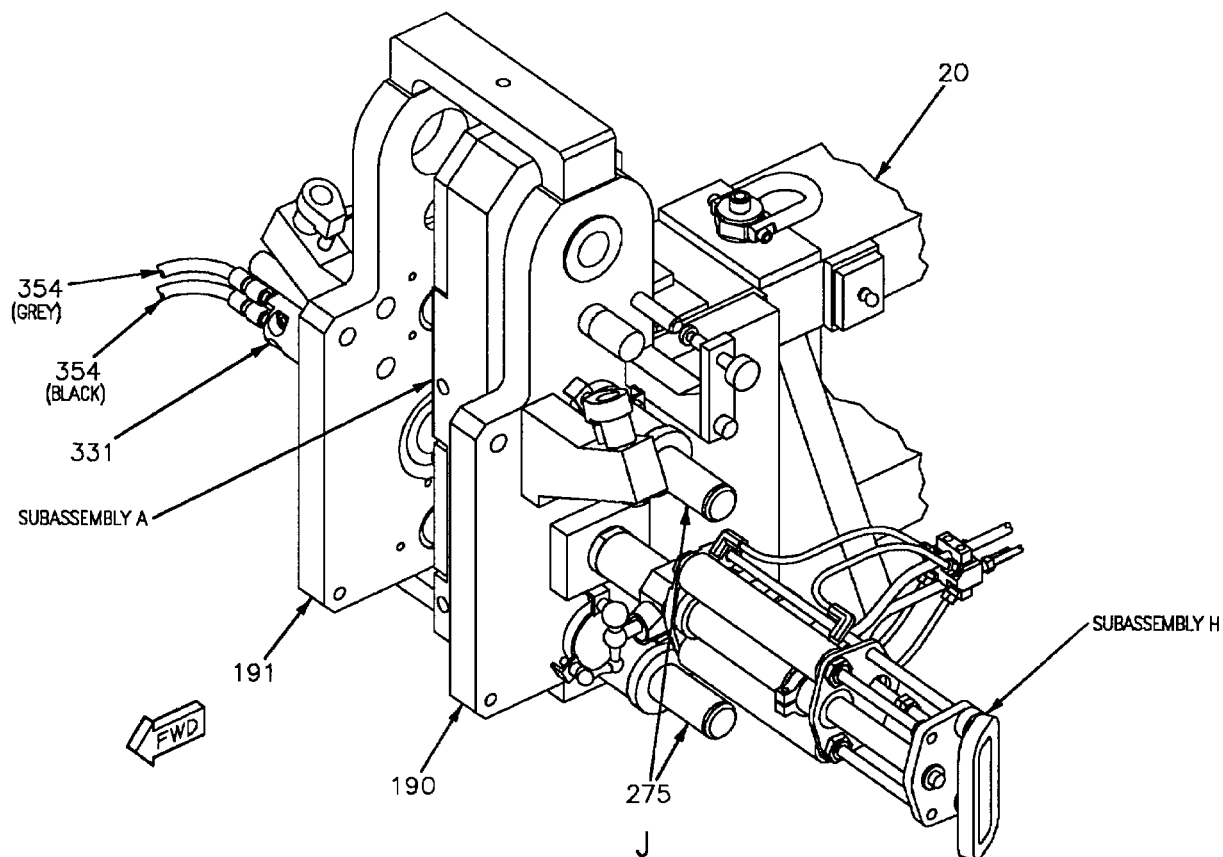


Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 5)



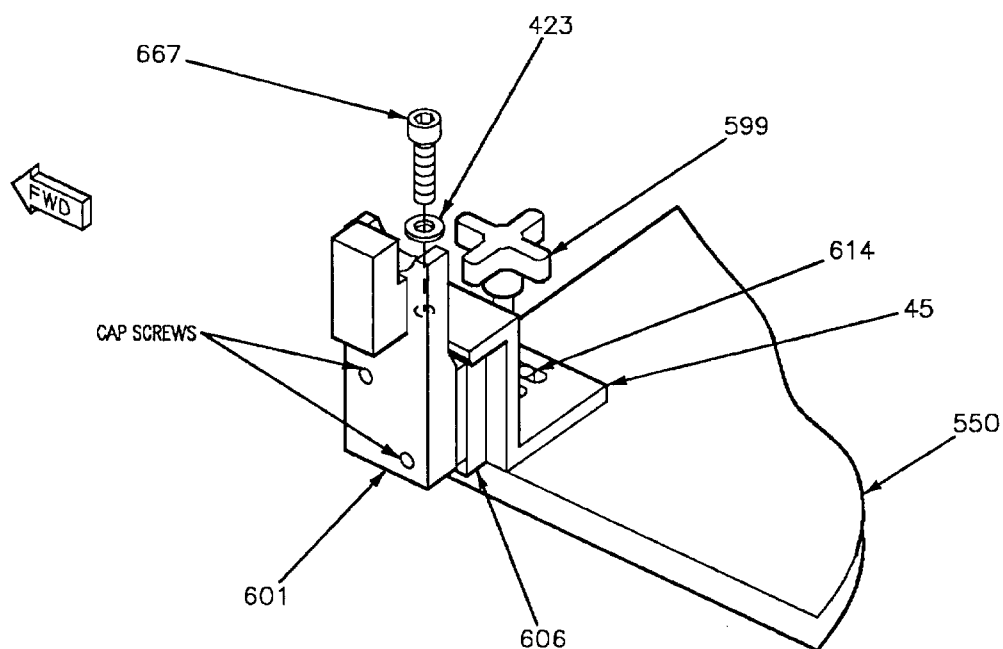
H



J

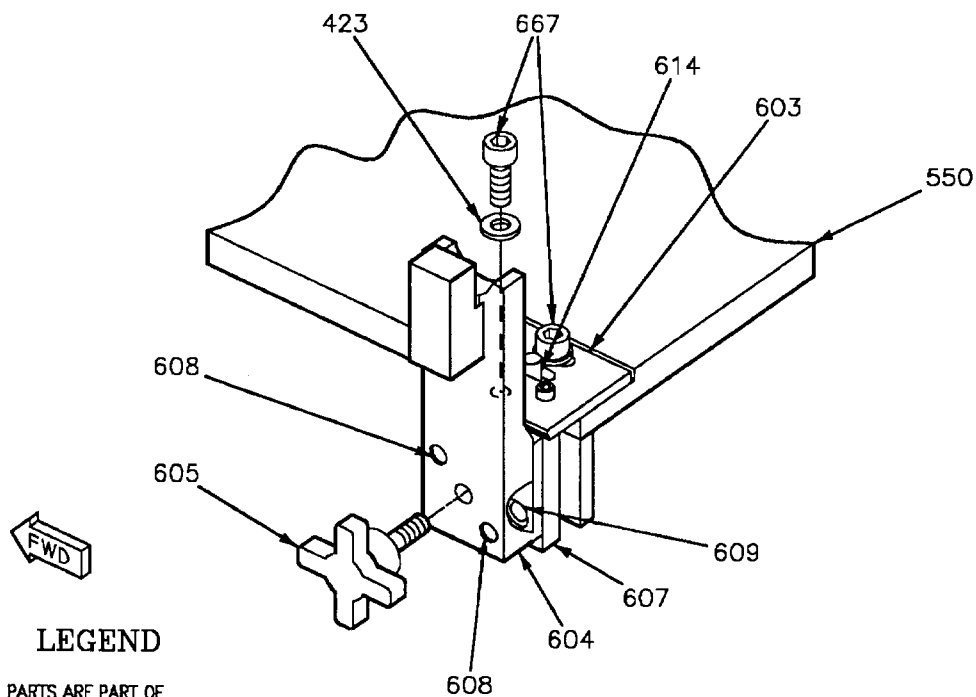
18AC-SRM-221-(123-6)03-CATI

Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 6)



K

TYPICAL BOTH SIDES



LEGEND

- 1 PARTS ARE PART OF
RE374314235 N.L.G. TRUNNION
DRAG BRACE SUPPORTS TOOL SET.

L

TYPICAL BOTH SIDES

18AC-SRM-221-(123-7)02-CATI

Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 7)










Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing sleeves.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly F	Alignment Frame	Checks for correct X plane location in nose landing gear bay.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
SPT6- RE374314235TD 	Driver	Used to align and secure reamers in cutting and spot facing operations.
SPT10- RE374314235TD 	Cutter	Used to spotface trunnion and drag brace bearing sleeves.
SPT12- RE374314235TD 	Reamer	Used for first oversize reaming on first pass in trunnion fitting, 74A314235.
SPT13- RE374314235TD 	Reamer	Used for first oversize reaming on second pass in trunnion fitting, 74A314235.
SPT14- RE374314235TD 	Reamer	Used for second oversize reaming on first pass in trunnion fitting, 74A314235.
SPT15- RE374314235TD 	Reamer	Used for second oversize reaming on second pass in trunnion fitting, 74A314235.
SPT23- RE374314235TD 	Reamer	Used to ream inside diameter of trunnion bearing sleeve.
ENERPAC RCH #202	Cylinder (Depot Furnished)	Used to operate (detail 128) by pushing it outboard to remove trunnion bearing sleeve.
12 	Support	Used to support and align ENERPAC RCH #202 cylinder.
16 	Retaining Ring	Used to hold (detail 21) onto SPT10-RE374314235TD.
19	Jacking Beam	Used to support the aircraft and secure Subassembly E using (detail 198, 199 and 200).

Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 8)



Detail No.	Name	Function
20	Welded Assembly	Used to attach (detail 240) and becomes a part of Subassembly E.
21 	Shim	Used to align (detail 213) to inside diameter of 74A314395 bearing sleeve.
23	Support	Pins to Subassembly E with (detail 178) and to Subassembly F with (detail 178) supporting Subassembly F in nose landing gear bay.
24	Clamp	Used to hold 74A314612 right hand trunnion and (detail 193) in the correct position, using (detail 319).
25	Clamp	Used to hold 74A314612 left hand trunnion and (detail 192) in the correct position using (detail 321).
26	Clamp	Used to hold 74A314235 left hand drag brace and (detail 190) in the correct position using (detail 324).
27	Clamp	Used to hold 74A314235, right hand drag brace and (detail 191) in the correct position using (detail 326).
43	Bracket	Holds Subassembly R on the lower right hand side of the tool frame when not using on Subassembly E.
45	Welded Assembly	Used to align Subassembly E when not attached to aircraft in the trunnion area.
126 	Cap	Used to secure (detail 128) into trunnion fitting 74A314235, bearing sleeve.
127	Sleeve Fitting	Used to align (detail 128) through 74A314395, bearing sleeve.
128	Threaded Stud	Used to secure sleeve fitting (detail 127) to (detail 126).
143	Nut, Hex	Used to secure (detail 142 and 144) onto ENERPAC RCH #202 cylinder.
144	Washer	Used with (detail 143) to take up slack on (detail 128).
147	Set Screws	Used to secure shaft (detail 275) to Subassembly A.
158	Set Screw	Used to lock in place (detail 218) into Subassembly A.
176	L-Brackets	Used to check for correct X plane between 74A314208 plates.
177	Bushing	Used to check for correct X plane between left hand 74A314208 plate.
178	L-pins	Aligns support locator (detail 23) in nominal position.
190	Plate	Part of Subassembly E used to align and for attaching components on left hand side in trunnion support area.

Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 9)



Detail No.	Name	Function
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.
198	Screw	Attach (detail 19) to Subassembly E with (detail 199 and 200).
199	Swivel Washers	Used on forward and aft side of (detail 19) with (detail 198 and 200) to attach (detail 19) to subassembly E.
200	Nuts	Used on forward side of (detail 19) with (detail 198) to attach (detail 19) to Subassembly E.
213 	Shaft	Used to align and secure SPT10-RE374314235TD in spotfacing on trunnion sleeve.
214 	Spacer	Used to gage amount that SPT10-RE374314235TD can take off of trunnion sleeve, 74A314395.
215	Screws	Adjusts center to center distance in right hand drag brace area.
218	Bushing	Attach (detail 219) by locking it into Subassembly A with (detail 158).
219	Indicator	Used to verify if bearing sleeve will clean up.
220	Blade	Used with (detail 218 and 219) in verifying that bearing sleeve will clean up.
240	Plate	Used to support and lift Subassembly E.
242	Adjusting Screws	Used to adjust (detail 279 or 293) into right hand trunnion fitting.
243	Adjusting Screws	Used with (detail 242) to adjust (detail 279 or 293) into right hand trunnion fitting.
244	Clamp	Used to Secure Subassembly E to (detail 20) and (detail 240).
245	Bolt	Used to secure (detail 244) to (detail 240).
248	Adjusting Screws	Used to adjust height of Subassembly E from (detail 240).
257	Plate	Used to secure (detail 192 and 193) together, attaching it with (detail 380).
262	Bushing	Used to check for correct X plane location in left and right hand drag brace area.

Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 10)

Detail No.	Name	Function
263	Bushings	Used to check for correct X plane location in left and right hand trunnion area.
264	L-Pins	Used to secure (detail 192) and (detail 20) in drag brace area.
267	Screws	Used to lock in place (detail 192) and (detail 20).
270	Bushing	Used to guide (detail 213) into Subassembly A.
271	Screw	Used to secure (detail 382) to (detail 190).
272	Holding Pin Bushing	Used to check for correct X plane location in left hand trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
275	Shafts	Used to support Subassembly A in Subassembly E secured with (detail 147).
276	Bushings	Installed into (detail 191 and 193), secured to (detail 279 or 293) with (detail 278).
278	Screws	Used to secure (detail 276) to (detail 279 or 293).
279	Sleeve Fittings	Installed into (detail 191 and 193), secured to (detail 276) with (detail 278).
280	Caps	Used to take up the slack in Z plane in drag brace area. Secured with (detail 281 and 287).
281	Screw	Used to secure (detail 280) to left hand drag brace, 74A314612.
282	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
284	Screw	Used to secure (detail 292) to right hand trunnion fitting.
285	Nuts	Used to lock (detail 286) into (detail 192).
286	Plug	Used to line up left hand drag brace sleeve 74A314663, with (detail 285).
287	Screw	Used to secure (detail 280) and take up slack between 74A314612 and (detail 272) in left hand drag brace area.
292	Cap	Used to take up the slack in Z plane in right hand trunnion fitting.
294	Sleeve Fitting	First oversize. Installed into (detail 193), secured to (detail 276) with (detail 278).

Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 11)

Detail No.	Name	Function
295	Sleeve Fitting	Second oversize. Installed into (detail 193), secured to (detail 276) with (detail 278).
298	Sleeve Fitting	First oversize. Used to line up left hand drag brace sleeve 74A314663, with (detail 285).
299	Sleeve Fitting	Second oversize. Used to line up left hand drag brace sleeve 74A314663, with (detail 285).
301	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
302	Sleeve Fitting	First oversize. Installed into (detail 191), secured to (detail 276) with (detail 284).
303	Sleeve Fitting	Second oversize. Installed into (detail 191), secured to (detail 276) with (detail 284).
309	Clamp Assemblies	Used to secure 74A314612 and 74A314619 longerons.
310	Nuts	Used to tighten up (detail 309) in trunnion and drag brace area.
311	Jacks	Used to take up slack between (detail 309), 74A314612 and 74A314619 longerons.
312	Screws	Used to attach (detail 313, 314, 315 and 316) to Subassembly E.
313	Block	Attached to (detail 193) and used as support for (detail 309).
314	Block	Attached to (detail 192) and used as support for (detail 309).
315	Block	Attached to (detail 190) and used as support for (detail 309).
316	Block	Attached to (detail 191) and used as support for (detail 309).
317	Retaining Screws	Used to secure left and right hand longeron, 74A314612 to Subassembly E.
318	Jack	Used to help secure right hand longeron, 74A314612 to Subassembly E.
319	Cap Screw	Used to attach (detail 24) to (detail 193).
320	Jack	Used to help secure left hand longeron, 74A314612 to Subassembly E.
321	Cap Screw	Used to attach (detail 25) to (detail 192).
322	Retaining Screws	Used to secure left and right hand trunnion support, 74A314235 to Subassembly E.
323	Jack	Used to help secure left hand trunnion support, 74A314235 to Subassembly E.

Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 12)

Detail No.	Name	Function
324	Cap Screw	Used to attach (detail 26) to (detail 190).
325	Jack	Used to help secure right hand trunnion support, 74A314235 to Subassembly E.
326	Cap Screw	Used to attach (detail 27) to (detail 191).
331	Motor	Used to operate the system.
332	Block	Attached to Subassembly E and used as a guide for Subassembly H.
334	Lock Button	Used to lock Subassembly H into place on Subassembly E.
335	Clevis	Used to attach Subassembly H to Subassembly A, secured with (detail 404).
354	Hoses	Used to provide air pressure to motor (detail 331).
382	Stop	Used to hold (detail 270) in place with (detail 271).
384	Sleeve Fitting	Used in place of (detail 294) if it will not install in drag brace fitting.
385	Sleeve Fitting	Used in place of (detail 295), if it will not install in drag brace fitting.
388	Sleeve Fitting	Used in place of (detail 302), if it will not install in trunnion fitting.
389	Sleeve Fitting	Used in place of (detail 303), if it will not install in trunnion fitting.
404	Shoulder Screw	Used to secure (detail 335) and Subassembly H.
423	Washer	Used with cap screw to adjust dovetail guide (detail 606) up or down to position shaft (detail 260 or 275) in trunnion area.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
455	Hand Crank	Use to manual move (detail 550) up or down.
478	Fittings	Used to connect hoses (detail 354) to motor (detail 331) when installed on Subassembly A.
550	Lift Platform	Used to lift Subassembly E up or down.
599	Knob	Used to secure (detail 45) to lift platform (detail 550) in trunnion area.
601	Guide	Used to align Subassembly E when not attached to aircraft and supports either (detail 260 or 275) in trunnion area.
602	Shaft	Used to support Subassembly E when not attached to aircraft.

Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 13)

Detail No.	Name	Function
603	Plate	Attached to (detail 550) with two cap screws, also as a supporting plate for (detail 607).
604	Guide	Used to align Subassembly E when not attached to aircraft and supports either (detail 260 or 275) in drag brace area.
605	Knob	Used to secure guide (detail 604) into dovetail slide (detail 607).
606	Dovetail Slide	Used to make adjustments on leveling Subassembly E in trunnion area when not attached to aircraft.
607	Dovetail Slide	Used to make adjustments on leveling Subassembly E in drag brace area when not attached to aircraft.
608	Nose Dowel Pins	Used to align guide (detail 604) into bullet nose bushings (detail 609) which are installed in dovetail slide (detail 607).
609	Bullet Nose Bushings	Used to align dowel pins (detail 608) which are installed in guide (detail 604).
614	Guide Pin	Used to align plate (detail 603) up with lift platform (detail 550).
667	Cap Screws	Used to align (detail 285 or 602) on (detail 601 or 607).
LEGEND		
<div> <div>1</div> Details are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set. </div> <div> <div>2</div> Details 16 and 214 are part of SPT10-RE374314235TD Spotfacer Assembly. </div>		

Figure 9. Trunnion Bearing First and Second Oversize Sleeve Installation (Sheet 14)

25. DRAG BRACE BEARING FIRST AND SECOND OVERSIZE SLEEVE INSTALLATION. Figure 10.**26. SET UP.****NOTE**

Left and right procedures the same.

a. Removing Subassembly A from Subassembly E.

(1) Slide plate (detail 240) as far forward as possible, figure 8, detail A.

(2) Slide upper shaft (detail 275) outboard clearing Subassembly E, figure 8, detail E.

(3) Pivot Subassembly A forward and slide lower shaft (detail 275) lowering Subassembly A down onto plate (detail 258).

b. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 10, detail E.

c. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support.

d. Install sleeve fitting, (detail 302) 1st oversize or (detail 303) 2nd oversize, by attaching it using screw (detail 278) three places. If unable to install sleeve fitting, (detail 302) 1st oversize or (detail 303) 2nd oversize, install sleeve fitting, (detail 388) 1st oversize or (detail 389) 2nd oversize, figure 10, detail A.

e. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand drag brace fitting, 74A314612.

f. Install sleeve fitting (detail 294) 1st oversize or (detail 295) 2nd oversize, by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting, (detail 294) 1st oversize or (detail 295) 2nd oversize, install sleeve fitting, (detail 384) 1st oversize or (detail 385) 2nd oversize, figure 10, detail B.

g. Place two L-pins (detail 264) in Nom position on plates (detail 192 and 193), figure 9, detail C.

h. Loosen bolt (detail 245) and clamp (detail 244) four places that are positioned on plate (detail 240).

i. Use adjusting screws (detail 242, 243 and 248) four places, figure 7, detail D, so as to engage sleeve fitting, (detail 302) 1st oversize or (detail 303) 2nd oversize. If unable to engage sleeve fitting, (detail 302) 1st oversize or (detail 303) 2nd oversize, engage sleeve fitting, (detail 388) 1st oversize or (detail 389) 2nd oversize into right hand trunnion fitting 74A314235, figure 10, detail A. To engage sleeve fitting, (detail 294) 1st oversize or (detail 295) 2nd oversize. If unable to install sleeve fitting (detail 294) 1st oversize (detail 295) 2nd oversize, install sleeve fitting (detail 384) 1st oversize or (detail 385) 2nd oversize into the right hand drag brace fitting, 74A314612, figure 10, detail B.

j. If center to center is off in right hand drag brace fitting, pull L-pins (detail 264) on each side of Subassembly E. Loosen four screws (detail 267) on each side of Subassembly E. Adjust center distance by turning screws (detail 215) on each side of Subassembly E, figure 9, detail E, either by tightening or loosening until sleeve fitting (detail 294) 1st oversize or (detail 295) 2nd oversize can be engaged into bearing sleeve or drag brace fitting. If unable to engage sleeve fitting (detail 294) 1st oversize or (detail 295) 2nd oversize, engage sleeve fitting, (detail 384) 1st oversize or (detail 385) 2nd oversize, figure 10, detail B.

NOTE

Make sure that spacing is within ± 0.030 . If not, engineering disposition has to be obtained for out of dimension repair.

k. Install L-pins (detail 264) into adjustment hole from -0.030 to +0.030 on each side of Subassembly E based upon if forward or aft adjustment was made, figure 9, detail E.

l. Torque screws (detail 267) four places on each side of Subassembly E to 60 ft lbs and clamp welded assembly (detail 20) with clamp (detail 244) with bolt (detail 245) four places, figure 9, detail E.

m. Slide plug (detail 306) 1st oversize or (detail 307) 2nd oversize through 2.751 diameter hole in plate (detail 190) until it engages left hand trunnion fitting, 74A314235. Secure plug (detail 306) 1st oversize or (detail 307) 2nd oversize by locking it in place with two nuts (detail 285), figure 10, detail A.

n. Install Subassembly F onto both sides of Subassembly E by pinning it with two L-pins (detail 178).

o. Swing Subassembly F up into the nose landing gear bay, then pin support (detail 23) by pinning it with two L-pins (detail 178) on both sides of Subassembly E, figure 7, sheet 1.

p. Check for correct X plane location, equal feel within ± 0.030 in nose landing gear bay at 74A314208 plates by inserting 0.250 inch feeler gage between L-brackets (detail 176) and 74A314208 plate on right side and between bushing (detail 177) and 74A314208 plate on left side, figure 7, detail C.

q. Check for correct X plane location, equal feel within ± 0.030 at 74A314235 trunnion support area by inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support right side and between bushing (detail 272) and 74A314235 trunnion support on left side, figure 7, detail A.

r. If alignment check fails to meet the requirements at 74A314235 trunnion support, shim as required between plate (detail 191) and sleeve fitting (detail 302) 1st oversize or (detail 303) 2nd oversize. If unable to install sleeve fitting, (detail 302) 1st oversize or (detail 303) 2nd oversize, install sleeve fitting, (detail 388) 1st oversize or (detail 389) 2nd oversize, figure 10, detail A.

s. Check for correct X plane location, equal feel within ± 0.030 at 74A314612 drag brace support area by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support right side, and between bushing (detail 272) and 74A314612 drag brace support on left side, figure 7, detail B.

t. If alignment check fails to meet the requirements of 74A314612 drag brace support, adjust plug (detail 286 or 297) by loosening or tightening nuts (detail 285) and/or shimming as required between plate (detail 193) and sleeve fitting (detail 279 or 293), figure 7, detail B.

u. Secure plate (detail 191) to trunnion support fitting by installing cap (detail 292) and attaching it with screw (detail 284), figure 10, detail A.

v. Secure plate (detail 193) to right hand drag brace support installing cap (detail 280) by attaching it with screw (detail 281), figure 10, detail B.

w. Secure Subassembly E to airframe.

(1) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion fitting, 74A314235 between retaining screw (detail 322) and jack (detail 323), figure 7, detail F.

(2) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion fitting, 74A314235 between retaining screw (detail 322) and jack (detail 325), figure 7, detail F.

(3) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace fitting, 74A314612 between retaining screw (detail 317) and jack (detail 318), figure 7, detail G.

(4) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace fitting, 74A314612 between retaining screw (detail 317) and jack (detail 320), figure 7, detail G.

(5) On left side of longeron 74A314619, attach block (detail 315) to plate (detail 190) by installing two screws (detail 312) from inboard side. Clamp longeron, 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(6) On right side of longeron 74A314619, attach block (detail 316) to plate (detail 191) by installing two screws (detail 312) from inboard side. Clamp longeron, 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(7) On right side of longeron 74A314612, attach block (detail 313) to plate (detail 193) by installing two screws (detail 312) from inboard side. Clamp longeron, 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(8) On left side of longeron 74A314612 attach block (detail 314) to plate (detail 192) by installing two screws (detail 312) from inboard side. Clamp longeron, 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(9) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 7, detail K.

(10) Do support reaming procedure, this WP.

27. SUPPORT REAMING.

NOTE

Left and right procedure the same.

a. First pass reaming.

(1) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 8, detail D.

(2) Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in detail C. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 8, detail E.

(3) Loosen upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 8, detail E.

(4) Pivot Subassembly A aft to gain access to install bushing (detail 270) in upper portion of plate (detail 192).

(5) Install stop (detail 382) to hold bushing (detail 270) in place by attaching stop (detail 382) with screw (detail 271), figure 7, detail E.

(6) Insert boring bar, SPT-RE374314235TD into bushing (detail 270) and position as far outboard as possible, figure 10, detail C.

(7) Rotate Subassembly A back to it's upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 8, detail E.

(8) Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount boring bar, SPT-RE374314235TD into Subassembly A and lock it in place with two set screws (detail 158), figure 8, detail E.

(9) Install reamer, SPT 19-RE374314235TD (1st oversize) or SPT20-RE374314235TD (2nd oversize) between plate (detail 192) and left hand drag brace fitting 74A314612, figure 10, detail C.

(10) Slide reamer, SPT19-RE374314235TD (1st oversize) or SPT20-RE374314235TD (2nd oversize) onto boring bar, SPT-RE374314235TD and rotate 90° to lock it in place, figure 10, detail D.

(11) Power feed reamer, SPT19-RE374314235TD (1st oversize) or SPT20-R3374314235TD (2nd oversize) into hole in left hand drag brace fitting, 74A314612 and ream to 2.4693 diameter (1st oversize) or 2.4795 diameter (2nd oversize), figure 10, detail C.

(12) Back reamer, SPT19-RE374314235TD (1st oversize) or SPT20-RE374314235TD (2nd oversize) out of hole in left hand drag brace fitting, 74A314612 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 10, detail E.

(13) Unlock reamer, SPT19-RE374314235TD (1st oversize) or SPT20-RE374314235TD (2nd oversize) by rotating 90° and slide it between plate (detail 192) and left hand drag brace fitting 74A314612, figure 10, detail D.

(14) Feed Subassembly A, as far as possible to the right hand side using feed from Subassembly H, figure 8, detail E.

(15) Loosen upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 8, detail E.

(16) Pivot Subassembly A aft to gain access to remove boring bar, SPT-RE374314235TD from bushing (detail 270), figure 8, detail E.

(17) Rotate Subassembly A back to it's upright position. Install shaft (detail 275) through upper portion of Subassembly E, figure 8, detail E.

(18) Remove boring bar, SPT-RE374314235TD from Subassembly A by removing two set screws (detail 158) and slide it between plate (detail 192) and left hand drag brace fitting 74A314612, figure 10, detail D.

b. Inspect diameter of bore/reamed hole in drag brace fitting, 74A314612 to 2.4693 diameter (1st oversize) or 2.4795 diameter (2nd oversize), figure 10, detail C.



Dry Cleaning Solvent, P-D-680, Type II

25

c. Clean diameter surface of bore/reamed hole in drag brace fitting 74A314612, using dry cleaning solvent.

d. Wipe and dry with clean dry cheesecloth.

e. Set up, Subassembly E before removing.

(1) Attach welded assembly (detail 45) to lift platform (detail 550) by aligning it up with guide pin (detail 614) located on forward end of lift platform (detail 550), both sides. Secure it by installing knob (detail 599), figure 10, detail F.

(2) Attach guide (detail 601) to dovetail slide (detail 606) using two cap screws. Attach dovetail slide to welded assembly (detail 45) with washer (detail 423) and cap screw, figure 10, detail F.

(3) Align guide (detail 604) to dovetail slide (detail 607), by installing two bullet nose dowel pins (detail 608) into bullet nose bushings (detail 609). Secure guide (detail 604) by attaching it with knob (detail 605), figure 10, detail G.

(4) Insert shaft (detail 602) through lower bushing (detail 261) attached to plate (detail 192 and 193).

f. Remove Subassembly E.

(1) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 7, detail K.

(2) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(3) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(4) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron

74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(5) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(6) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace fitting 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 7, detail G.

(7) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace fitting, 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 7, detail G.

(8) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion fitting 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 7, detail F.

(9) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 7, detail F.

(10) On right hand side of drag brace area 74A314612, remove screw (detail 281) and cap (detail 280) from sleeve fitting (detail 294) 1st oversize or (detail 295) 2nd oversize, figure 10, detail B.

(11) On right side of trunnion area 74A314235, remove screw (detail 284) and cap (detail 292) from sleeve fitting (detail 302) 1st oversize (detail 303) 2nd oversize, figure 10, detail A.

(12) On left side of trunnion area 74A314235, remove two nuts (detail 285) holding plug (detail 306) 1st oversize or (detail 307) 2nd oversize in 2.751 diameter hole in plate (detail 190), figure 10, detail A.

(13) In left side drag brace area 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 10, detail B.

(14) In left side trunnion support area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 10, detail A.

(15) Disconnect hoses (detail 354) from motor (detail 311).

(16) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 192).

(17) On Subassembly L, turn LIFT knob switch to PARK position, figure 10, detail E.

(18) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 193).

(19) Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame.

(20) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

(21) Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334). Remove Subassembly H through lower hole in plate (detail 192), figure 8, detail E. Attach Subassembly H to left side of tool frame.

(22) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 10, detail E.

(23) Check that shaft (detail 602) is setting securely onto guide (detail 601) on both sides of lift platform (detail 550), forward end. If not, loosen or tighten top cap screw (detail 667), on welded assembly (detail 45) to raise or lower dovetail slide (detail 606) until shaft (detail 602) is securely setting on guide (detail 601).

(24) On the aft end of lift platform (detail 550) check to make sure that shaft (detail 285) is setting securely onto guide (detail 604) on both sides of lift platform (detail 550). If not, loosen or tighten top outboard cap screw (detail 667), on plate (detail 603) to raise or lower dovetail slide (detail 607) until shaft (detail 285) is securely setting on guide (detail 607).

28. OVERSIZE BEARING SLEEVE INSTALLATION.

NOTE

Left and right procedures the same.

a. Machine outside diameter of bearing sleeve 74A314663, for 0.0013 to 0.0032 interference fit in hole in drag brace fitting, 74A314612.

(1) Attach support (detail 12) to Subassembly E with cap screw (detail 668) and washer (detail 669), figure 6, detail A.



Sealing Compound, High Temperature, MIL-S-83430

26

(2) Install sleeve fitting (detail 130) into bearing sleeve, 74A314663-2005 (1st oversize) or 74A314663-2007 (2nd oversize).

(3) Apply fillet seal around peripheral of bearing sleeve. For application of fillet seal (A1-F18AC-SRM-200, WP011 00).

(4) Insert threaded stud (detail 142) with washer (detail 144) and nut (detail 143) through ENERPAC RCH #202 cylinder, sleeve fitting (detail 130 and 123). Place on support (detail 12), figure 6, detail A.

(5) On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until threaded stud (detail 142) lines up with hole in drag brace fitting 74A314612. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 10, detail E.

(6) Insert threaded stud (detail 142) with washer (detail 144) and nut (detail 143) and ENERPAC RCH #202 cylinder through sleeve fitting (detail 130 and 222), figure 6, detail A.

(7) Screw cap (detail 131) onto threaded stud (detail 142) from outboard side taking up the slack, figure 6, detail A.

(8) Energize cylinder to install bearing sleeve 74A314663 into drag brace fitting 74A314612, figure 6, detail A.

(9) Remove threaded stud (detail 142), washer (detail 144), and nut (detail 143) from ENERPAC RCH #202 cylinder, figure 6, detail A.

(10) Remove ENERPAC RCH #202 cylinder from support (detail 12), figure 6, detail A.

(11) Remove cap screw (detail 668) and washer (detail 669), holding support (detail 12) from Subassembly E. Remove support (detail 12) from Subassembly E, figure 6, detail A.

b. Reinstall Subassembly E.

(1) On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn Lift knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 10, detail E.

(2) Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support, 74A314325. Install sleeve fitting (detail 302) 1st oversize or (detail 303) 2nd oversize, by attaching it to bushing (detail 276) using screw (detail 278) three places, or install sleeve fitting (detail 388) 1st oversize, if unable to install sleeve fitting (detail 302). Install sleeve fitting (detail 389) 2nd oversize, if unable to install (detail 303) 2nd oversize, figure 10, detail A.

(3) Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand drag brace fitting, 74A314612. Install sleeve fitting (detail 294) 1st oversize, or (detail 295) 2nd oversize, by attaching it to bushing (detail 276) using screw (detail 278) three places, or install sleeve fitting (detail 384) 1st oversize, if unable to install sleeve fitting (detail 294), install sleeve fitting (detail 385) 2nd oversize, if unable to install (detail 295) 2nd oversize, figure 10, detail B.

(4) On left side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(5) On right side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(6) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron

74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(7) Slide plug (detail 306) 1st oversize or (detail 307) 2nd oversize through 2.751 diameter hole in plate (detail 190) until it engages left hand trunnion fitting, 74A314235. Secure plug (detail 306) 1st oversize or (detail 307) 2nd oversize by locking it in place with two nuts (detail 285), figure 10, detail A.

(8) Secure plate (detail 193) to right hand drag brace, 74A314612 fitting by installing cap (detail 280) and attaching it with screw (detail 281), figure 10, detail B.

(9) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 323), figure 7, detail F.

(10) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 325), figure 7, detail F.

(11) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 318), figure 7, detail G.

(12) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 320), figure 7, detail G.

(13) On left side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(14) On right side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(15) On left side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack

(detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(16) On right side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(17) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 7, detail K.

(18) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 7, detail N.

(19) Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in figure 7, detail A. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 7, detail A.

(20) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

(21) On Subassembly L, turn LIFT knob switch to PARK position, figure 10, detail E. Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

(22) Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 191) locking it in place with Subassembly A, figure 7, detail A.



Make sure hoses (detail 354) are connected to proper inlets.

(23) Connect hoses (detail 354) to motor (detail 331).

c. Check inside diameter of 74A314663, bearing sleeve.

(1) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

(2) On Subassembly L, turn LIFT knob switch to PARK position, figure 8, detail G.

(3) Install indicator (detail 219) with bushing (detail 218) locking it in place with two set screws (detail 158), figure 8, detail E.

(4) Install blade (detail 220) onto indicator (detail 219), figure 8, detail E.

(5) On Subassembly L, turn LIFT knob switch to DRIVE position and FEED knob switch to MANUAL position. Turn SPINDLE knob switch to FWD L H position, figure 8, detail G.

(6) Sweep inside diameter of left hand drag brace fitting bearing sleeve with indicator (detail 219), figure 8, detail E.

(7) Indicator (detail 219) should read within 0.003 to verify bearing sleeve will clean up, figure 8, detail E.

(8) If bearing sleeve will not clean up, do drag brace sleeve removal and installation, nominal size procedure, this WP.

(9) On Subassembly L, turn FEED knob switch to POWER position. Turn SPINDLE knob switch to OFF position, figure 8, detail G.

(10) Remove indicator (detail 219) from bushing (detail 218) by removing two screws (detail 158), figure 8, detail E.

29. SLEEVE REAMING.

NOTE

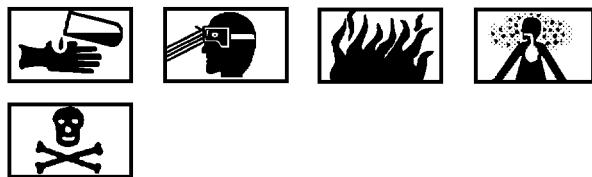
Left and right procedure the same.

a. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount boring bar, SPT-RE374314235TD from outboard side of drag brace fitting 74A314612, through bushing (detail 270) and into Subassembly A and lock it in place with two set screws (detail 158), figure 10, detail C.

b. Install reamer, SPT24-RE374314235TD between plate (detail 192) and left hand drag brace fitting 74A314612, figure 10, detail C.

c. Slide reamer, SPT24-RE374314235TD onto boring bar, SPT-RE374314235TD and rotate 90° to lock it in place, figure 10, detail D.

d. On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position and turn LIFT knob switch to DRIVE position. Turn POWER FEED knob switch to LH, figure 10, detail E.



Beryllium

13



Do not feed too far past relief in bearing sleeve to prevent damage to bottom of bearing sleeve.

e. Power feed reamer, SPT24-RE374314235TD into bearing sleeve 74A314663, to ream inside diameter to 2.250, figure 10, detail C.

f. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 10, detail E.

g. Back reamer, SPT24-RE374314235TD out of bearing sleeve 74A314663 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 10, detail E.

h. Remove reamer, SPT24-RE374314235TD from between inboard side of drag brace fitting, 74A314663 and Subassembly E, figure 10, detail D.

i. Remove boring bar, SPT-RE374314235TD from Subassembly A by removing two set screws (detail 158) and slide it between plate (detail 192) and left hand drag brace fitting 74A314663, figure 10, detail D.

j. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A.

k. Pivot Subassembly A aft to gain access to remove boring bar SPT-RE374314235TD from bushing (detail 270), figure 8, detail H.

l. Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 8, detail E.

30. **SPOTFACING.** Spray mist coolant tank assembly RE874000002-1, is used during spotfacing per (A1-F18AC-SRM-200, WP004 16).

NOTE

Left and right procedures the same.

a. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 8, detail E.

b. Pivot Subassembly A aft to gain access to insert shaft (detail 213) into bushing (detail 270) and position as far outboard as possible, figure 8, detail J.

c. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 8, detail E.

d. From inboard side of Subassembly E, slide spacer (detail 214) onto shaft (detail 213), securing it with two set screws, figure 8, detail J and L.

e. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount shaft (detail 213) into Subassembly A and lock it in place with two set screws (detail 158), figure 8, detail J.

NOTE

Check cutter, SPT10-RE374314235TD for sharpness after each operation. Cutter may require sharpening.

f. Slide cutter, SPT 10-RE374314235TD between Subassembly E and left hand drag brace fitting 74A314612, onto shaft (detail 213). Rotate shaft (detail 213) 90° to lock it in place, figure 8, detail L.

g. Install shim (detail 21) onto cutter. SPT10-RE374314235TD using retaining ring (detail 16) to lock it in place, figure 8, detail L.

h. Set depth of spotfacer, SPT10-RE374314235TD according to the reading taken during paragraph 10, step p, with stop collar (detail 214), figure 8, detail L.

i. Slide Subassembly A as far as possible to the left side of Subassembly E and still clear plate (detail 192).

j. On Subassembly L, turn LIFT knob switch to PARK position, figure 10, detail E.

k. Remove motor (detail 331) from bracket (detail 43) which is located on right hand side of tool frame.

l. Install motor (detail 331) through lower 4.00 inch diameter hole in plate (detail 193) locking it in place with Subassembly A, figure 8, detail E.



Make sure hoses (detail 354) are connected to proper inlets.

m. Connect hoses (detail 354) to motor (detail 331).

n. On Subassembly L, turn SPINDLE knob switch to FWD L H position and turn FEED knob switch to POWER position. Turn POWER FEED to L.H. position and turn LIFT knob switch to DRIVE position, figure 10, detail E.

o. Power assisted hand feed cutter, SPT10-RE374314235TD to spotface bearing sleeve 74A314663, figure 8, detail L.

p. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 10, detail E.

q. Back cutter, SPT10-RE374314235TD from face of bearing sleeve 74A314663 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 10, detail E.

r. Loosen two set screws attaching spacer (detail 214) onto shaft (detail 213), figure 8, detail L.

(1) Unlock retaining ring (detail 16) and remove it and shim (detail 21) from cutter, SPT10-RE374314235TD, figure 8, detail L.

s. Remove shaft (detail 213) from Subassembly A by removing two set screws (detail 158), figure 8, detail J.

t. Slide spacer (detail 214) from shaft (detail 213), figure 8, detail L.

u. Rotate cutter, SPT10-RE374314235TD 90° on shaft (detail 213) and remove it between drag brace fitting 74A314612 and Subassembly E, figure 8, detail J.

v. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 8, detail E.

w. Pivot Subassembly A aft to gain access to remove shaft (detail 213) from bushing (detail 270), figure 8, detail J.

x. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 8, detail E.

y. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Remove shaft (detail 213) from Subassembly A, by unscrewing two set screws (detail 158), figure 8, detail J.

z. Remove Subassembly E.

(1) Disconnect hoses (detail 354) from motor (detail 331).

(2) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 192).

(3) On Subassembly L, turn LIFT knob switch to PARK position, figure 10, detail E.

(4) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 193).

(5) Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame.

(6) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 355), figure 8, detail E.

(7) Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334). Remove

Subassembly H through lower hole in plate (detail 192), figure 8, detail E. Attach Subassembly H to left side of tool frame with knob (detail 655), figure 8, detail A.

(8) At right hand trunnion support 74A314235, remove screw (detail 284) and cap (detail 292) from plate (detail 191), figure 10, detail A.

(9) At left hand trunnion support 74A314235 remove screw (detail 287) and cap (detail 292) from plate (detail 190), figure 10, detail A.

(10) At right hand drag brace support 74A314612, remove screw (detail 281) and cap (detail 280) from plate (detail 193), figure 10, detail B.

(11) On left hand trunnion support 74A314235, remove two nuts (detail 285) holding plug (detail 306 or 307) to plate (detail 192). Remove plug (detail 306 or 307) from inboard side of plate (detail 192), figure 10, detail B.

(12) On left hand trunnion fitting 74A314235 remove retaining screw (detail 322) and jack (detail 323) attached to trunnion fitting, 74A314235. Remove cap screw (detail 324) and clamp (detail 26) from plate (detail 190), figure 7, detail F.

(13) On right hand trunnion fitting 74A314235, remove retaining screw (detail 322) and jack (detail 325) attached to trunnion fitting, 74A314235. Remove cap screw (detail 326) and clamp (detail 27) from plate (detail 191), figure 7, detail F.

(14) On left hand side of longeron 74A314612, remove retaining screw (detail 317) and jack (detail 320) attached to longeron, 74A314612. Remove cap screw (detail 321) and clamp (detail 25) from plate (detail 192), figure 7, detail G.

(15) On right hand side of longeron 74A314612, remove retaining screw (detail 317) and jack (detail 318) attached to longeron, 74A314612. Remove cap screw (detail 319) and clamp (detail 24) from plate (detail 193), figure 7, detail G.

(16) On left hand side of longeron 74A314619, remove clamp assembly (309) and jack (detail 311) attached to longeron, 74A314619. Remove two screws (detail 312) and block (detail 316) from plate (detail 191), figure 7, detail H.

(17) On right hand side of longeron 74A314619, remove clamp assembly (detail 309) and jack (detail 311)

attached to longeron 74A314619. Remove two screws (detail 312) and block (detail 315) from plate (detail 190), figure 7, detail H.

(18) On left hand side of longeron 74A314612, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314612. Remove two screws (detail 312) and block (detail 314) from plate (detail 192), figure 7, detail J.

(19) On right hand side of longeron 74A314612, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314612. Remove two screws (detail 312) and block (detail 313) from plate (detail 193), figure 7, detail J.

(20) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 7, detail K.

(21) Connect hoses (detail 354) to motor (detail 331).

(22) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 10, detail E.

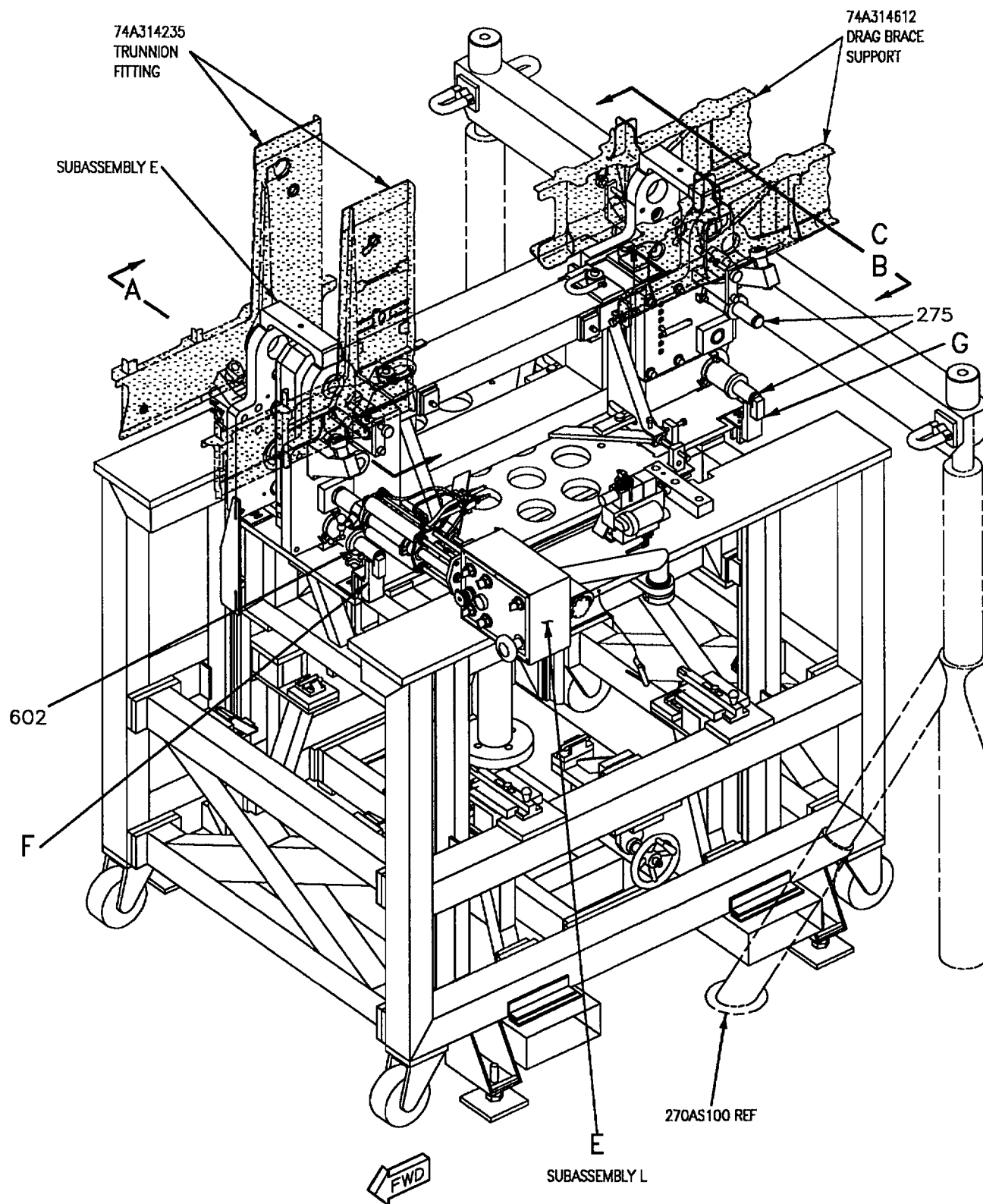
(23) On right side trunnion support 74A314235, remove screw (detail 278) three places and bushing (detail 302, 303, 388 or 389) from inboard side of plate (detail 191). Remove sleeve fitting (detail 282, 301 or 387) from outboard side of plate (detail 191), figure 10, detail A.

(24) On right side drag brace fitting, 74A314612, remove screw (detail 278) three places and bushing (detail 276) from inboard side of plate (detail 193). Remove sleeve fitting (detail 294, 295, 384 or 385) from outboard side of plate (detail 193), figure 10, detail B.

(25) In left side drag brace area, 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 10, detail B.

(26) In left side trunnion support area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 10, detail A.

(27) If repair is complete, do locating fixture removal, this WP.



18AC-SRM-221-(124-1)02-CAT1

Figure 10. Drag Brace Bearing First and Second Oversize Sleeve Installation (Sheet 1)

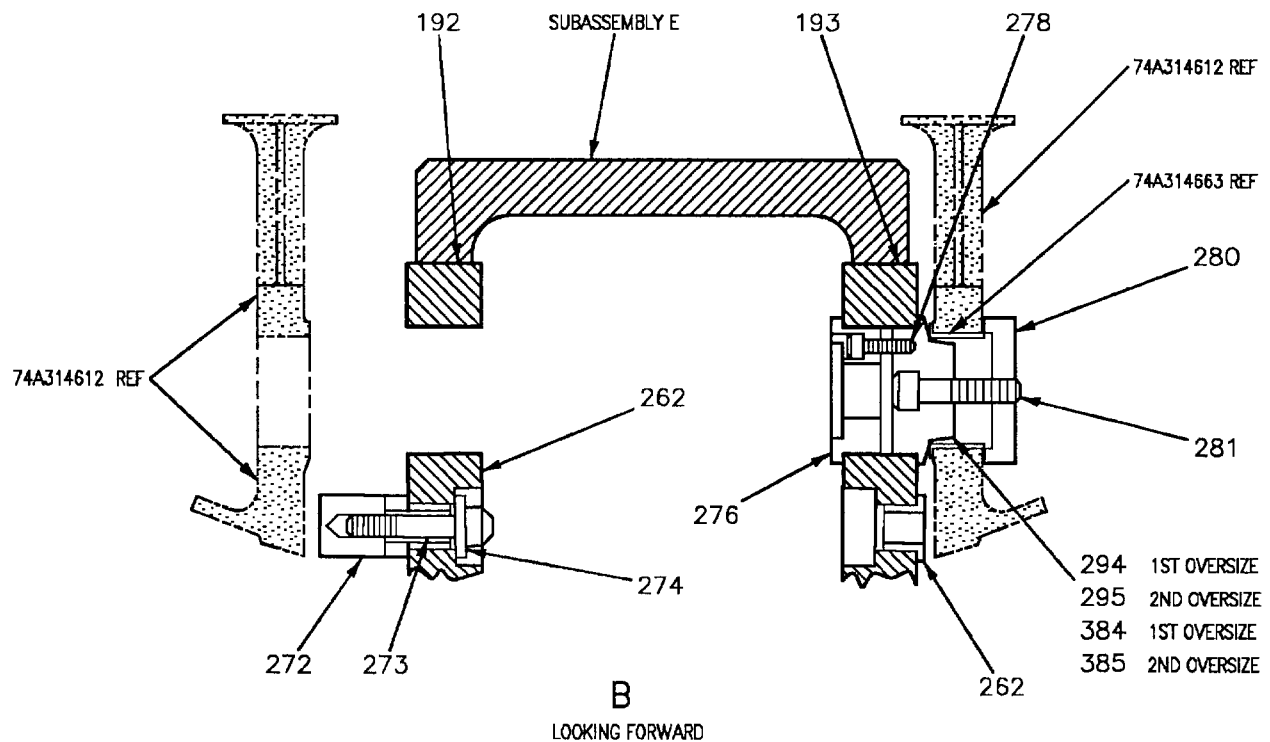
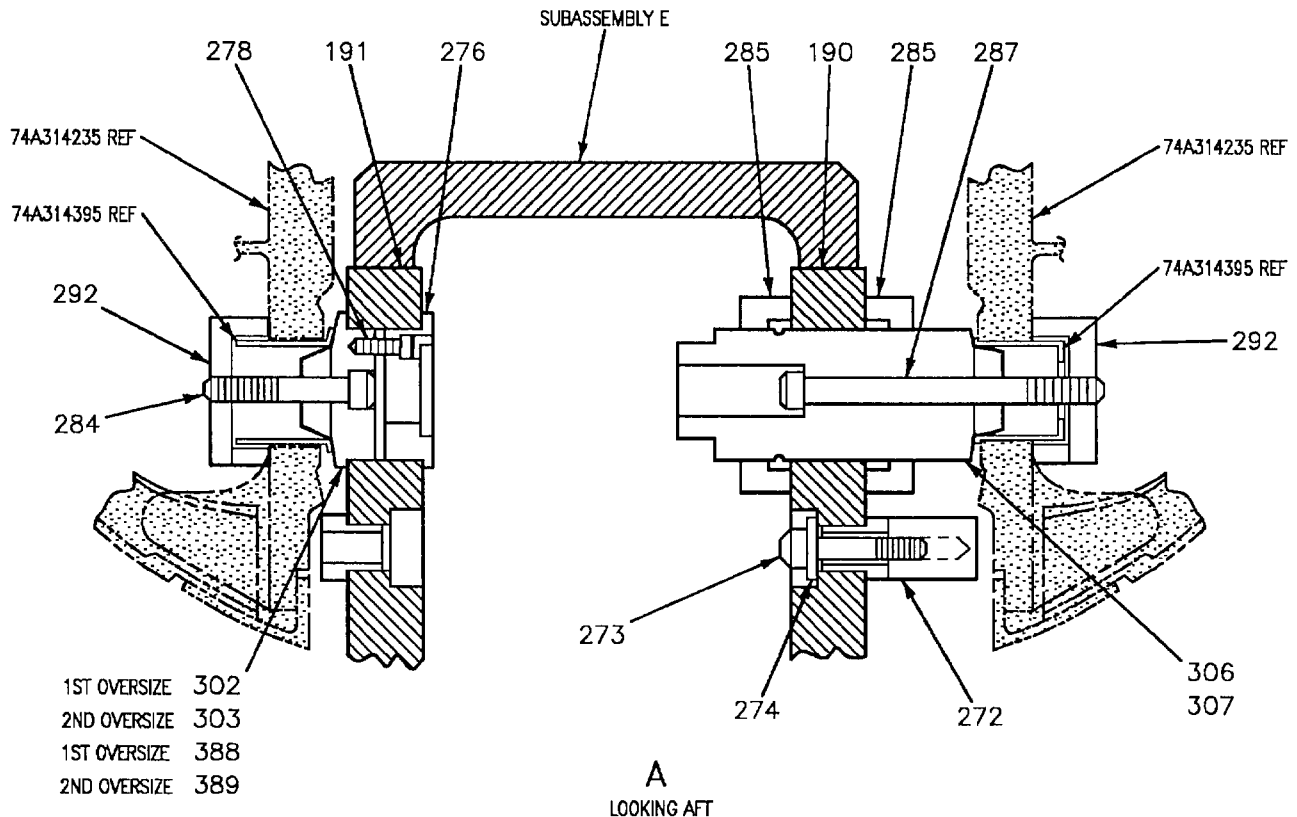
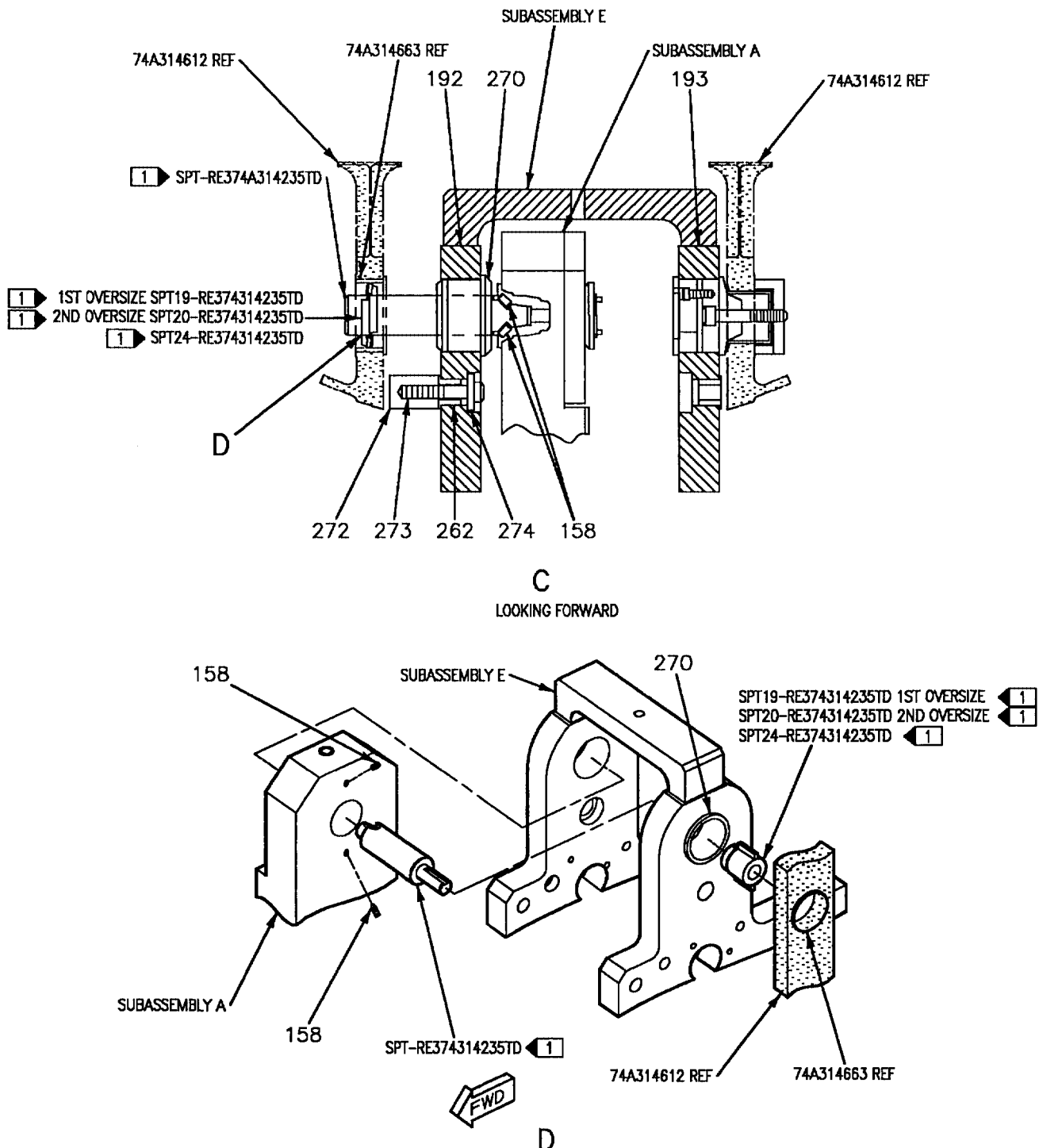
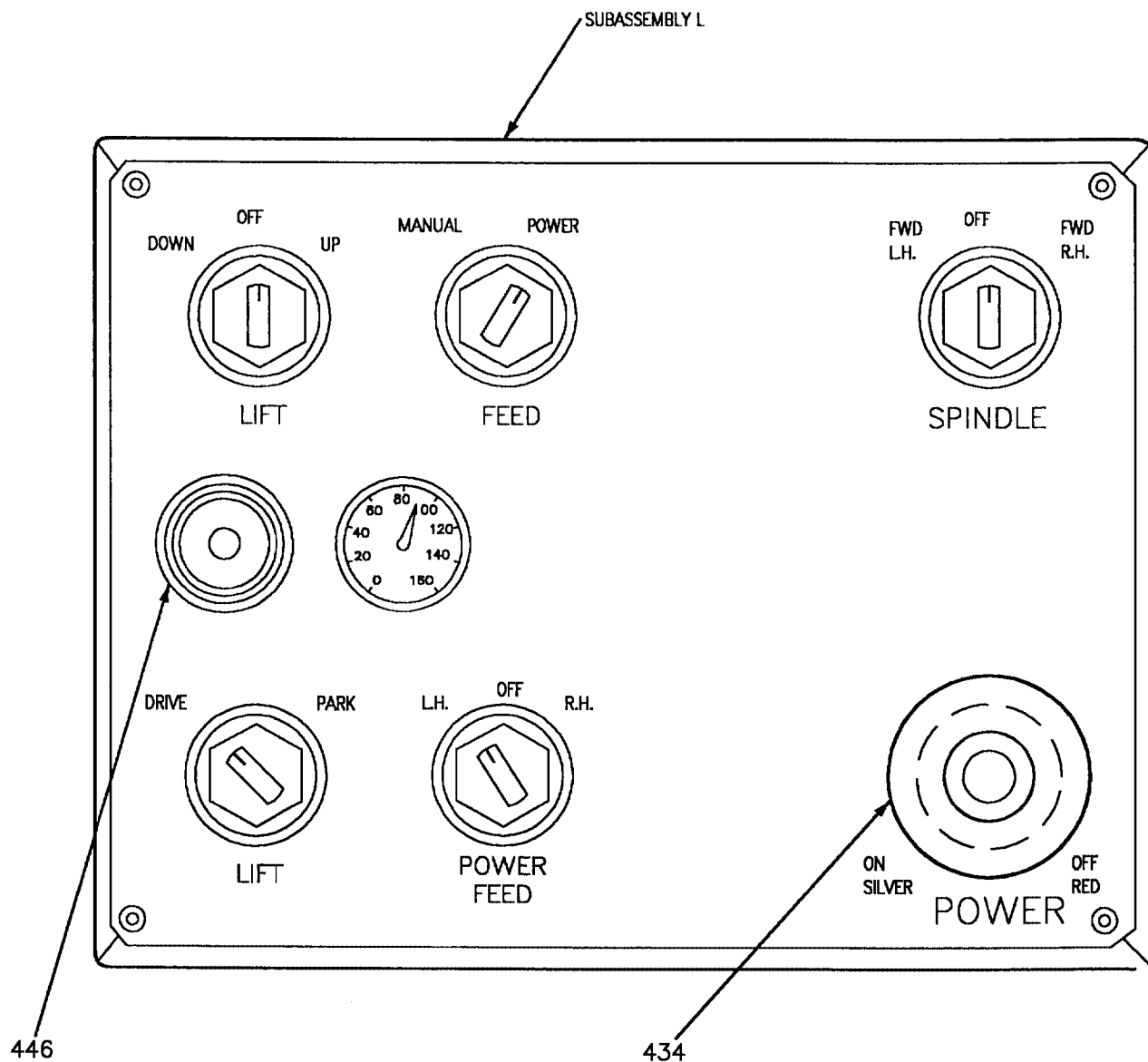


Figure 10. Drag Brace Bearing First and Second Oversize Sleeve Installation (Sheet 2)



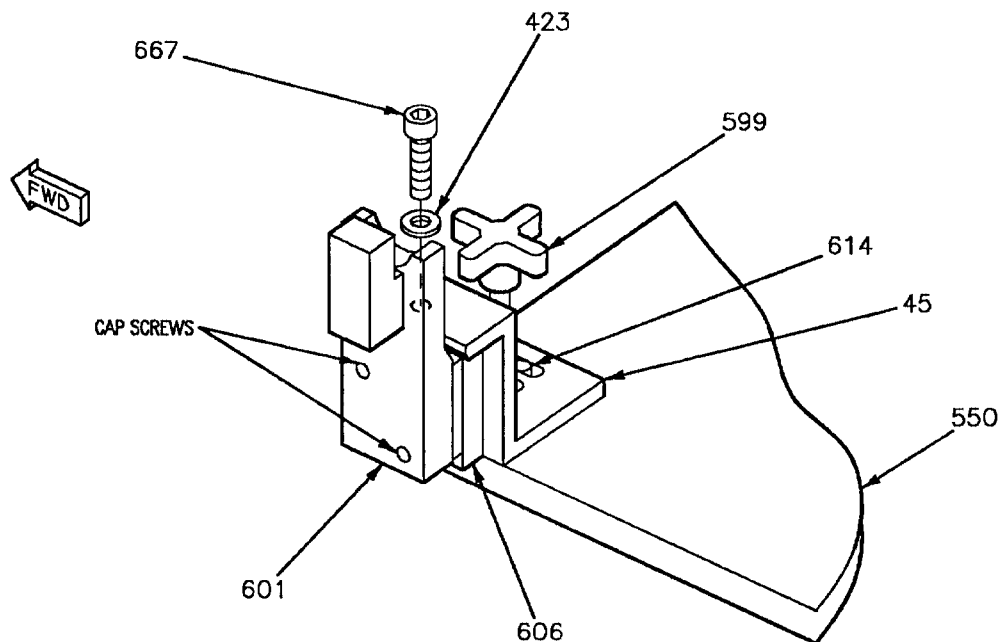
18AC-SRM-221-(124-3)02-CATI

Figure 10. Drag Brace Bearing First and Second Oversize Sleeve Installation (Sheet 3)



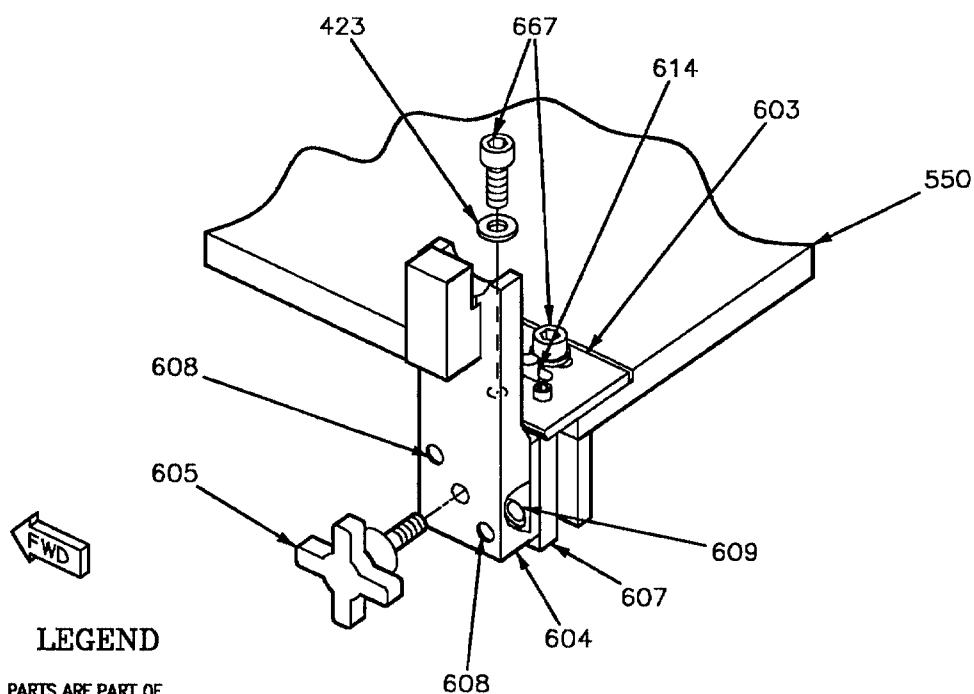
E

Figure 10. Drag Brace Bearing First and Second Oversize Sleeve Installation (Sheet 4)



F

TYPICAL BOTH SIDES



G

TYPICAL BOTH SIDES

LEGEND

- 1 PARTS ARE PART OF
RE374314235 N.L.G.
TRUNNION DRAG BRACE
SUPPORTS TOOL SET.

Figure 10. Drag Brace Bearing First and Second Oversize Sleeve Installation (Sheet 5)







Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing sleeves.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly F	Alignment Frame	Checks for correct X plane location in nose landing gear bay.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
SPT- RE374314235TD 	Boring Bar	Used to align and secure reamers to Subassembly A in cutting operations.
SPT10- RE374314235TD 	Cutter	Used to spotface trunnion and drag brace bearing sleeves.
SPT24- RE374314235TD 	Reamer	Used for 1st pass reaming in drag brace bearing sleeve, 74A314663.
ENERPAC RCH #202	Cylinder (Depot Furnished)	Used to operate (detail 142) by pushing it outboard to remove drag brace bearing sleeve.
12 	Support	Used to support and align ENERPAC RCH #202 cylinder.
16 	Retaining Ring	Used to hold (detail 21) onto SPT10-RE374314235TD.
19	Jacking Beam	Used to support the aircraft and secure Subassembly E using (detail 198, 199 and 200).
20	Welded Assembly	Used to attach (detail 240) and becomes a part of Subassembly E.
21 	Shim	Used to align (detail 213) to inside diameter of 74A314395, bearing sleeve.
23	Support	Pins to Subassembly E with (detail 178) and to Subassembly F with (detail 178) supporting Subassembly F in nose landing gear bay.
24	Clamp	Used to hold 74A314612, right hand trunnion and (detail 193) in the correct position, using (detail 319).
25	Clamp	Used to hold 74A314612, left hand trunnion and (detail 192) in the correct position, using (detail 321).

Figure 10. Drag Brace Bearing First and Second Oversize Sleeve Installation (Sheet 6)

Detail No.	Name	Function
26	Clamp	Used to hold 74A314235, left hand drag brace and (detail 190) in the correct position, using (detail 324).
27	Clamp	Used to hold 74A314235, right hand drag brace and (detail 191) in the correct position, using (detail 326).
43	Bracket	Holds Subassembly R on the lower right hand side of the tool frame when not using on Subassembly E.
45	Welded Assembly	Used to align Subassembly E when not attached to aircraft in the trunnion area.
123	Sleeve Fitting	Used to secure (detail 131) into drag brace fitting, 74A314663 bearing sleeve.
130	Sleeve Fitting	Used to align (detail 142) through 74A314663 bearing sleeve and secured with (detail 131).
131	Cap	Used to secure (detail 142) into drag brace fitting, 74A314612.
142	Threaded Stud	Used to secure sleeve fitting (detail 123 and 130) to (detail 131).
143	Nut, Hex	Used to secure (detail 142 and 144) onto ENERPAC RCH #202 cylinder.
144	Washer	Used with (detail 143) to take up slack on (detail 142).
158	Set Screw	Used to lock in place boring bar, SPT-RE374314235TD into Subassembly A.
176	L-Brackets	Used to check for correct X plane between 74A314208 plates.
177	Bushing	Used to check for correct X plane between left hand 74A314208 plate.
178	L-pins	Aligns support locator (detail 23) in nominal position.
190	Plate	Part of Subassembly E, used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.

Figure 10. Drag Brace Bearing First and Second Oversize Sleeve Installation (Sheet 7)




Detail No.	Name	Function
198	Screw	Attach (detail 19) to Subassembly E with (detail 199 and 200).
199	Swivel Washers	Used on forward and aft side of (detail 19) with (detail 198 and 200) to attach (detail 19) to subassembly E.
200	Nuts	Used on forward side of (detail 19) with (detail 198) to attach (detail 19) to Subassembly E.
213 	Shaft	Used to align and secure SPT10-RE374314235TD in spotfacing on drag brace sleeve.
214 	Spacer	Used to gage amount that SPT10-RE374314235TD can take off of trunnion sleeve, 74A314395.
215	Screws	AdJusts center to center distance in right hand drag brace
222 	Sleeve Fitting	Used to secure (detail 131) into drag brace fitting 74A314663, bearing sleeve.
240	Plate	Used to support and lift Subassembly E.
242	Adjusting Screws	Used to adjust (detail 294 or 295) into right hand drag brace fitting.
243	Adjusting Screws	Used with (detail 242) to adjust (detail 302 or 303) into right hand trunnion fitting.
244	Clamp	Used to Secure Subassembly E to (detail 20) and (detail 240).
245	Bolt	Used to secure (detail 244) to (detail 240).
248	Adjusting Screws	Used to adjust height of Subassembly E from (detail 240).
258	Plate	Used to secure (detail 190 and 191) together, attaching it with (detail 380).
262	Bushing	Used to check for correct X plane location in left and right hand drag brace area.
263	Bushings	Used to check for correct X plane location in left and right hand trunnion area.
264	L-Pins	Used to secure (detail 192) and (detail 20) in drag brace area.
267	Screws	Used to lock in place (detail 192) and (detail 20).
270	Bushing	Used to guide (detail 213) into Subassembly A.

Figure 10. Drag Brace Bearing First and Second Oversize Sleeve Installation (Sheet 8)

Detail No.	Name	Function
271	Screw	Used to secure (detail 382) to (detail 190).
272	Holding Pin Bushing	Used to check for correct X plane location in left hand trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
275	Shafts	Used to support Subassembly A in Subassembly E, secured with (detail 147).
276	Bushings	Installed into (detail 191 and 193), secured to (detail 302 or 303) and (detail 294 and 295) with (detail 278).
278	Screws	Used to secure (detail 276) to (detail 294 or 295) and (detail 302 or 303).
280	Caps	Used to take up the slack in Z plane in drag brace area. Secured with (detail 281)
281	Screw	Used to secure (detail 280) to right hand drag brace, 74A314612.
284	Screw	Used to secure (detail 292) to right hand trunnion fitting.
285	Nuts	Used to lock (detail 306) into (detail 190).
287	Screw	Used to secure (detail 280) and take up slack between 74A314612 and (detail 272) in left side drag brace area.
292	Cap	Used to take up the slack in Z plane in right hand trunnion fitting.
294	Sleeve Fitting	First oversize. Installed into (detail 193), secured to (detail 276) with (detail 278).
295	Sleeve Fitting	Second oversize. Installed into (detail 193), secured to (detail 276) with (detail 278).
302	Sleeve Fitting	First oversize. Installed into (detail 191), secured to (detail 276) with (detail 278).
303	Sleeve Fitting	Second oversize. Installed into (detail 191) secured to (detail 276) with (detail 278)
306	Plug	First oversize. Used to line up right hand trunnion bearing 74A314395, secured with (detail 285).

Figure 10. Drag Brace Bearing First and Second Oversize Sleeve Installation (Sheet 9)

Detail No.	Name	Function
307	Plug	Second oversize. Used to line up right hand trunnion bearing 74A314395, secured with (detail 285).
309	Clamp Assemblies	Used to secure 74A314612 and 74A314619 longeron.
311	Jacks	Used to take up slack between (detail 309) and 74A314612 and 74A314619 longeron.
312	Cap Screws	Used to attach (detail 313, 314, 315 and 316) to Subassembly E.
313	Block	Attached to (detail 193) and used as support for (detail 309).
314	Block	Attached to (detail 192) and used as support for (detail 309).
315	Block	Attached to (detail 190) and used as support for (detail 309).
316	Block	Attached to (detail 191) and used as support for (detail 309).
317	Retaining Screws	Used to secure left and right hand longeron 74A314612 to Subassembly E.
318	Jack	Used to help secure right hand longeron 74A314612 to Subassembly E.
319	Cap Screw	Used to attach (detail 24) to (detail 193).
320	Jack	Used to help secure left hand longeron 74A314612 to Subassembly E.
321	Cap Screw	Used to attach (detail 25) to (detail 192).
322	Retaining Screws	Used to secure left and right hand trunnion support 74A314235 to Subassembly E.
323	Jack	Used to help secure left hand trunnion support 74A314235 to Subassembly E.
324	Cap Screw	Used to attach (detail 26) to (detail 190).
325	Jack	Used to help secure right hand trunnion support 74A314235 to Subassembly E.
326	Cap Screw	Used to attach (detail 27) to (detail 191).
331	Motor	Used to operate the system.
332	Block	Attached to Subassembly E and used as a guide for Subassembly H.

Figure 10. Drag Brace Bearing First and Second Oversize Sleeve Installation (Sheet 10)

Detail No.	Name	Function
334	Lock Button	Used to lock Subassembly H into place on Subassembly E.
335	Clevis	Used to attach Subassembly H to Subassembly A, secured with (detail 404).
354	Hoses	Used to provide air pressure to motor (detail 331).
382	Stop	Used to hold (detail 270) in place with (detail 271).
384	Sleeve Fitting	Used in place of (detail 294) if it will not install in drag brace fitting.
385	Sleeve Fitting	Used in place of (detail 295), if it will not install in drag brace fitting.
388	Sleeve Fitting	Used in place of (detail 302), if it will not install in trunnion fitting.
389	Sleeve Fitting	Used in place of (detail 303), if it will not install in trunnion fitting.
404	Shoulder Screw	Used to secure (detail 335) and Subassembly H.
423	Washer	Used with cap screw to adjust dovetail guide (detail 606) up or down and to position shaft (detail 260 or 275) in trunnion area.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
478	Fittings	Used to connect hoses (detail 354) to motor (detail 331) when installed on Subassembly A.
550	Lift Platform	Used to lift Subassembly E up or down.
599	Knob	Used to secure (detail 45) to lift platform (detail 550) in trunnion area.
601	Guide	Used to align Subassembly E when not attached to aircraft and supports either (detail 260 or 275) in trunnion area.
602	Shaft	Used to support Subassembly E when not attached to aircraft.
603	Plate	Attached to (detail 550) with two cap screws, also as a supporting plate for (detail 607).
604	Guide	Used to align Subassembly E when not attached to aircraft and supports either (detail 260 or 275) in drag brace area.
605	Knob	Used to secure guide (detail 604) onto dovetail slide (detail 607).

Figure 10. Drag Brace Bearing First and Second Oversize Sleeve Installation (Sheet 11)

Detail No.	Name	Function
606	Dovetail Slide	Used to make adjustments on leveling Subassembly E in trunnion area when not attached to aircraft.
607	Dovetail Slide	Used to make adjustments on leveling Subassembly E in drag brace area when not attached to aircraft.
608	Nose Dowel Pins	Used to align guide (detail 604) into bullet nose bushings (detail 609) which are installed in dovetail slide (detail 607).
609	Bullet Nose Bushings	Used to align nose dowel pins (detail 608) which are installed in guide (detail 604).
614	Guide Pin	Used to align plate (detail 603) up with lift platform (detail 550)
667	Cap Screws	Used to align (detail 285 or 602) on (detail 601 or 607).
<p style="text-align: center;">LEGEND</p> <p> 1 Details are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set. 2 Detail is part of SPT10-RE374314235TD Spotfacer Assembly. </p>		

Figure 10. Drag Brace Bearing First and Second Oversize Sleeve Installation (Sheet 12)

31. TRUNNION BEARING THIRD OVER-SIZE SLEEVE INSTALLATION. Figure 11.**32. SET UP.****NOTE**

Left and right procedures the same.

a. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn Lift knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 11, detail C.

b. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support, 74A314325.

c. Install sleeve fitting (detail 393) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 393), install sleeve fitting (detail 395), figure 11, detail A.

d. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand drag brace fitting, 74A314612.

e. Install sleeve fitting (detail 394) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 394), install sleeve fitting (detail 396), figure 11, detail B.

f. Place two L-pins (detail 264) in Nom position on plates (detail 192 and 193), figure 7, detail L.

g. Loosen bolt (detail 245) clamp (detail 244) four places that are positioned on plate (detail 240).

h. Use adjusting screws (detail 242, 243 and 248) four places, figure 7, detail D, so as to engage sleeve fitting (detail 393) into right hand trunnion fitting 74A314235, figure 11, detail A, or sleeve fitting (detail 394) into right hand drag brace fitting 74A314612, figure 11, detail B. If unable to install sleeve fitting (detail 393) into right hand trunnion fitting 74A314235, install sleeve fitting (detail 395) or if unable to install

sleeve fitting (detail 394) into right hand drag brace fitting 74A314612, install sleeve fitting (detail 396).

i. If center to center is off in right hand drag brace fitting 74A314612, pull L-pins (detail 264) on each side of Subassembly E. Loosen four screws (detail 267) on each side of Subassembly E. Adjust center distance by turning screw (detail 215) on each side of Subassembly E, figure 7, detail D, either by tightening or loosening until sleeve fitting (detail 394) can be engaged into bearing sleeve 74A314663 or drag brace fitting 74A314612, figure 11, detail B. If unable to install sleeve fitting (detail 393) into right hand trunnion fitting 74A314235, figure 11, detail A, install sleeve fitting (detail 395) or if unable to install sleeve fitting (detail 394) into right hand drag brace fitting 74A314612, install sleeve fitting (detail 396).

NOTE

Make sure that spacing is within ± 0.030 . If not, engineering disposition has to be obtained for out of dimension repair.

j. Install L-pins (detail 264) into adjustment hole from -0.030 to +0.030 on each side of Subassembly E based upon if forward or aft adjustment was made, figure 7, detail L.

k. Torque screws (detail 267) four places on each side of Subassembly E to 60 ft lbs and clamp welded assembly (detail 20) with clamp (detail 244) with bolt (detail 245) four places, figure 7, detail L.

l. Install plug (detail 391) into 2.751 diameter hole in plate (detail 192) at left hand drag brace fitting. Secure plug (detail 391) by locking in place with two nuts (detail 285), figure 11, detail B.

m. Install bushing (detail 262) into plate (detail 192) and pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left hand drag brace area, figure 11, detail B.

n. Install bushing (detail 262) into plate (detail 193).

o. Install bushing (detail 263) and pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left hand trunnion support area, figure 11, detail A.

p. Install bushing (detail 263) into plate (detail 191), figure 11, detail A.

q. Install Subassembly F onto both sides of Subassembly E by pinning it with two L-pins (detail 178).

r. Swing Subassembly F up into the nose landing gear bay, then pin support (detail 23) by pinning it with two L-pins (detail 178) on both sides of Subassembly E, figure 7, sheet 1.

s. Check for correct X plane location, equal feel within ± 0.030 in nose landing gear bay at 74A314208 plates by inserting 0.250 inch feeler gage between L-brackets (detail 176) and 74A314208 plate on right side and between bushing (detail 177) and 74A314208 plate on left side, figure 7, detail C.

t. Check for correct X plane location, equal feel within ± 0.030 at 74A314235 trunnion support area by inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support right side and between pin bushing (detail 272) and 74A314235 trunnion support on left side, figure 7, detail A.

u. If alignment check fails to meet the requirements at 74A314235 trunnion support, shim as required between plate (detail 191) and sleeve fitting (detail 393), or (detail 395), figure 11, detail A.

v. Check for correct X plane location, equal feel within ± 0.030 at 74A314612 drag brace support area by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support right side and between pin bushing (detail 272) and 74A314612 drag brace support on the left side, figure 7, detail B.

w. If alignment check fails to meet the requirements of 74A314612 drag brace support, adjust plug (detail 391) by loosening or tightening nuts (detail 285) and/or shimming as required between plate (detail 193) and sleeve fitting (detail 394) or (detail 396), figure 11, detail B.

x. Secure plate (detail 191) to trunnion support fitting installing cap (detail 292) by attaching it with screw (detail 284), figure 11, detail A.

y. Secure plate (detail 193) to right hand drag brace support installing cap (detail 280) by attaching it with screw (detail 281), figure 11, detail B.

z. Secure plate (detail 192) to left hand drag brace support by installing cap (detail 280) by tacking it with screw (detail 287), figure 11, detail B.

aa. Secure Subassembly E to airframe.

(1) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 323), figure 7, detail F.

(2) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 325), figure 7, detail F.

(3) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 318), figure 7, detail G.

(4) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack, (detail 320) into plate (detail 192). Clamp left hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 320), figure 7, detail G.

(5) On left side of longeron 74A314619, attach block (detail 315) to plate (detail 190) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(6) On right side of longeron 74A314619, attach block (detail 316) to plate (detail 191) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(7) On right side of longeron 74A314612, attach block (detail 313) to plate (detail 193) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly

(detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(8) On left side of longeron 74A314612 attach block (detail 314) to plate (detail 192) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(9) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 7, detail K.

(10) Do Support Reaming procedure, this WP.

33. SUPPORT REAMING.

NOTE

Left and right procedures the same.

a. Feed Subassembly A as far as possible to the right side using feed from Subassembly H, figure 11, detail A.

b. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 7, detail A.

c. Pivot Subassembly A forward to gain access to install bushing (detail 270) in upper portion of plate (detail 190).

d. Install stop (detail 382) to hold bushing (detail 270) in place by attaching stop (detail 382) with screw (detail 271), figure 7, detail E.

e. Insert driver SPT6-RE374314235TD into bushing (detail 270) and position as far outboard as possible, figure 11, detail A and D.

f. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 7, detail A.

g. Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 7, detail N.

h. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in figure 7, detail A. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 7, detail A.

i. Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

j. On Subassembly L, turn LIFT knob switch to PARK position, figure 11, detail C.

k. Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

l. Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 191) locking it in place with Subassembly A, figure 7, detail A.



Make sure hoses (detail 354) are connected to proper inlets.

m. Connect hoses (detail 354) to motor (detail 331).

n. Install reamer, SPT16-RE374314235TD between plate (detail 190) and left hand trunnion fitting 74A314235, figure 11, detail A.

o. Slide reamer, SPT16-RE374314235TD onto driver, SPT6-RE374314235TD and rotate 90° to lock it in place, figure 11, detail D.

p. On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position and turn LIFT knob to DRIVE position. Turn POWER FEED knob switch to L.H., figure 11, detail C.

q. Power feed reamer, SPT16-RE374314235TD into hole in left hand trunnion fitting 74A314235 and ream to 2.1683 diameter, figure 11, detail A.

r. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 11, detail C.

s. Back reamer, SPT16-RE374314235TD out of hole in left hand trunnion fitting 74A314235 and feed Subassembly A as far to the right side by turning on

Subassembly L, SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 11, detail A and C.

t. Unlock reamer, SPT16-RE374314235TD by rotating 90° and slide it between plate (detail 190) and left hand trunnion fitting 74A314235, figure 11, detail A and D.

u. Feed Subassembly A as far as possible to the right side to remove driver, SPT6-RE374314235TD from Subassembly A by removing set screws (detail 158).

v. Move driver, SPT6-RE374314235TD as far outboard as possible while remaining in bushing (detail 270), figure 11, detail A.

w. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 7, detail A.

x. Pivot Subassembly A aft to gain access to remove driver, SPT6-RE374314235TD from bushing (detail 270), figure 11, detail A.

y. Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 7, detail A.

z. Inspect diameter of bore/reamed hole in trunnion fitting, 74A314235 to 2.1683 inch with an inside caliper micrometer.



Dry Cleaning Solvent, P-D-680, Type II

25

aa. Clean diameter surface of bore/reamed hole in trunnion fitting 74A314235, using dry cleaning solvent.

ab. Wipe and dry with clean dry cheesecloth.

ac. Set up, Subassembly E before removing.

(1) Attach welded assembly (detail 45) to lift platform (detail 550) by aligning it up with guide pin (detail 614) located on forward end of lift platform (detail 550), both sides. Secure it by installing knob (detail 559), figure 9, detail K.

(2) Attach guide (detail 601) to dovetail slide (detail 606) using two cap screws. Attach dovetail slide (detail 606) to welded assembly (detail 45) with washer (detail 423) and cap screw, figure 9, detail K.

(3) Align guide (detail 604) to dovetail slide (detail 607), by installing two bullet nose dowel pins (detail 608) into bullet nose bushings (detail 609). Secure guide (detail 604) by attaching it with knob (detail 605), figure 9, detail L.

(4) Insert shaft (detail 602) through lower bushing (detail 261) attached to plate (detail 192 and 193), figure 9, detail E.

ad. Remove Subassembly E.

(1) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 7, detail K.

(2) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(3) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(4) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(6) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(6) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace fitting 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 7, detail G.

(7) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace fitting, 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 7, detail G.

(8) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion fitting 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 7, detail F.

(9) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 7, detail F.

(10) On left hand side of drag brace fitting 74A314612, remove screw (detail 287) and cap (detail 280) from plug (detail 391), figure 11, detail B.

(11) On right side of drag brace fitting 74A314612, remove screw (detail 281) and cap (detail 280) from sleeve fitting (detail 394) or (detail 396), figure 11, detail B.

(12) On right side of trunnion fitting 74A314235, remove screw (detail 284) and cap (detail 292) from sleeve fitting (detail 393) or (detail 395), figure 11, detail A.

(13) On left side of drag brace fitting 74A314612, remove two nuts (detail 285) holding plug (detail 391) in 2.751 diameter hole in plate (detail 192), figure 11, detail B.

(14) In left side drag brace area, 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 9, detail B.

(15) In left side trunnion support area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 9, detail A.

(16) Disconnect hoses (detail 354) from fittings (detail 378).

(17) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 190).

(18) On Subassembly L, turn LIFT knob switch to PARK position, figure 11, detail C.

(19) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 191).

(20) Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame.

(21) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

(22) Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334).

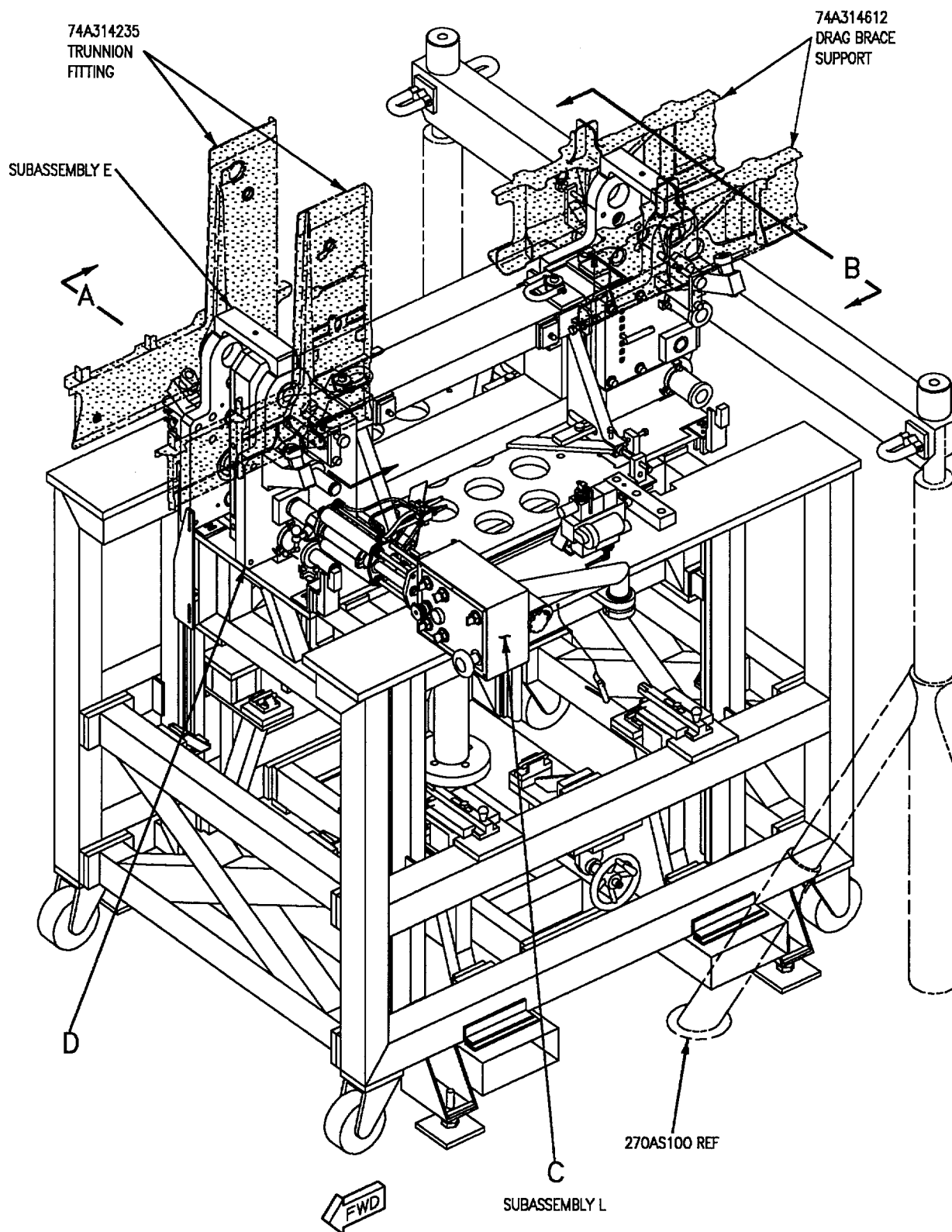
(23) Remove Subassembly H through lower hole in plate (detail 192), figure 7, detail A. Attach Subassembly H to left side of tool frame.

(24) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 11, detail C.

(25) Check that shaft (detail 602) is setting securely onto guide (detail 601) on both sides of lift platform (detail 550), forward end. If not, loosen or tighten top cap screw (detail 667), on welded assembly (detail 45) to raise or lower dovetail slide (detail 606) until shaft (detail 602) is securely setting on guide (detail 601).

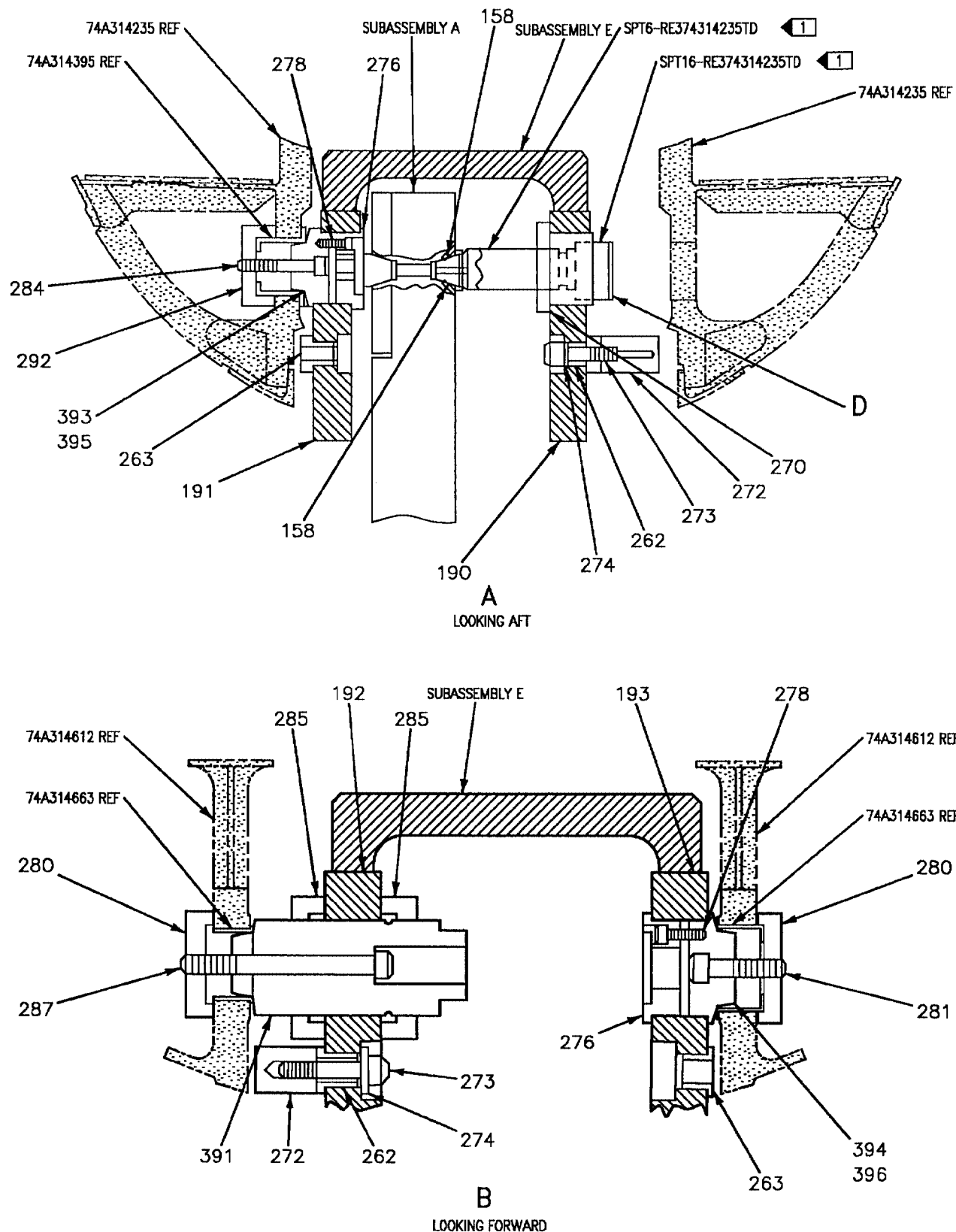
(26) On the aft end of lift platform (detail 550) check to make sure that shaft (detail 285) is setting securely onto guide (detail 604) on both sides of lift platform (detail 550). If not, loosen or tighten top outboard cap screw (detail 667), on plate (detail 603) to raise or lower dovetail slide (detail 607) until shaft (detail 285) is securely setting on guide (detail 607).

(27) Do cold working trunnion procedure, this WP.



18AC-SRM-221-(125-1)02-CAT1

Figure 11. Trunnion Bearing Third Oversize Sleeve Installation (Sheet 1)



18AC-SRM-221-(125-2)02-CATI

Figure 11. Trunnion Bearing Third Oversize Sleeve Installation (Sheet 2)

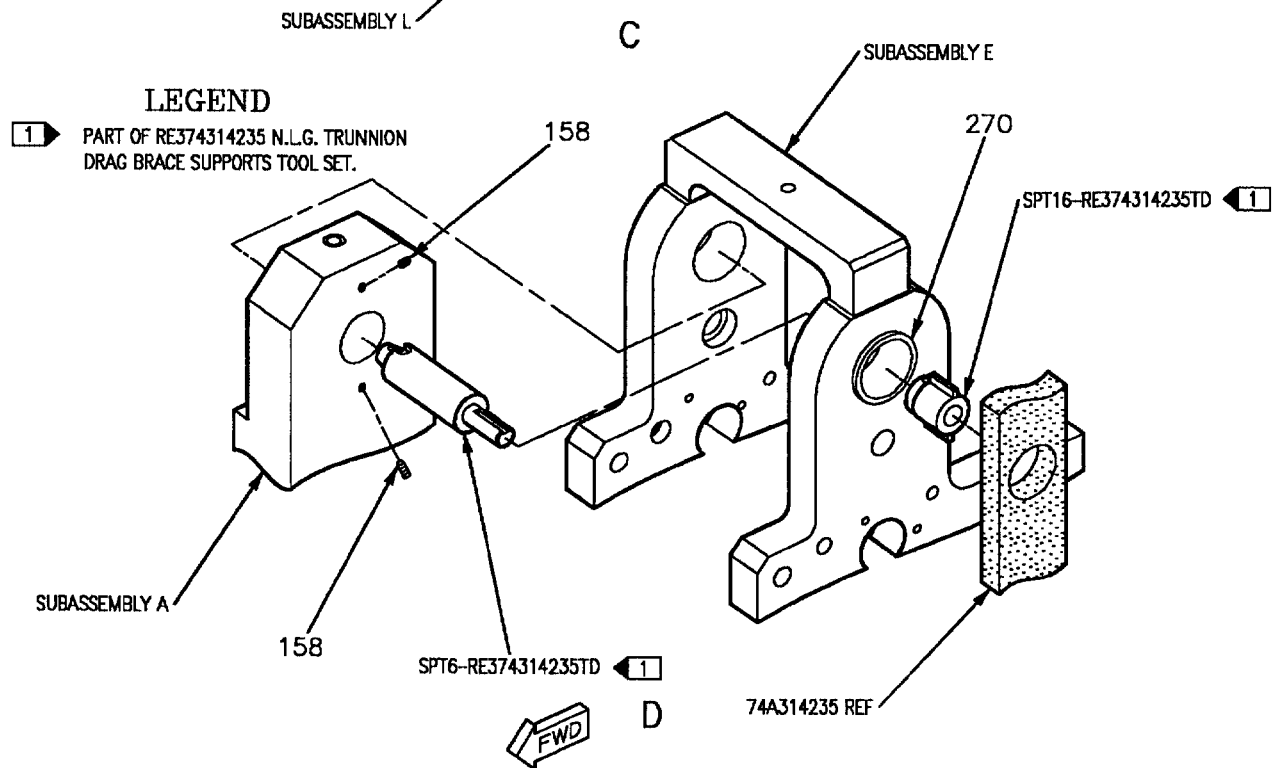
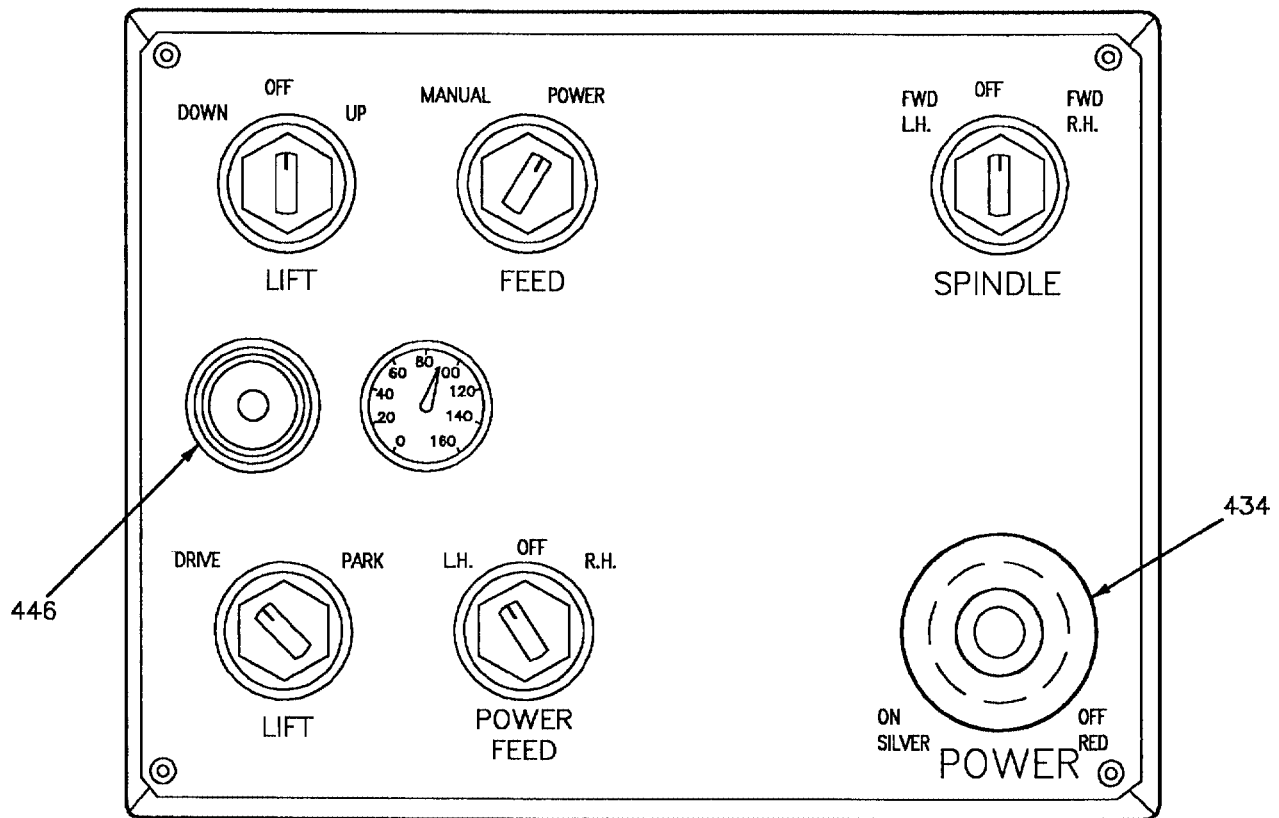


Figure 11. Trunnion Bearing Third Oversize Sleeve Installation (Sheet 3)



Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing sleeves.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly F	Alignment Frame	Checks for correct X plane location in nose landing gear bay.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
SPT6- RE374314235TD 	Driver	Used to align and secure reamer, SPT16-RE374314235TD to Subassembly A.
SPT16- RE374314235TD 	Reamer	Used for 3rd oversize reaming in trunnion fitting, 74A314235.
19	Jacking Beam	Used to support the aircraft and secure Subassembly E using (detail 198, 199 and 200).
20	Welded Assembly	Used to attach (detail 240) and becomes a part of Subassembly E.
23	Support	Pins to Subassembly E with (detail 178) and to Subassembly F with (detail 178) supporting Subassembly F in nose landing gear bay.
24	Clamp	Used to hold 74A314612 right hand trunnion and (detail 193) in the correct position, using (detail 319).
25	Clamp	Used to hold 74A314612 left hand trunnion and (detail 192) in the correct position using (detail 321).
26	Clamp	Used to hold 74A314235 left hand drag brace and (detail 190) in the correct position using (detail 324).
27	Clamp	Used to hold 74A314235, right hand drag brace and (detail 191) in the correct position using (detail 326).
31	Fixture	Houses controls to operate locating fixture.
43	Bracket	Holds Subassembly R on the lower right hand side of the tool frame when not using on Subassembly E.
45	Welded Assembly	Used to align Subassembly E when not attached to aircraft in the trunnion area.
147	Set Screws	Used to secure shaft (detail 275) to Subassembly A.

Figure 11. Trunnion Bearing Third Oversize Sleeve Installation (Sheet 4)

Detail No.	Name	Function
158	Set Screws	Used to lock in place driver, SPT6-RE374314235TD into Subassembly A.
176	L-Brackets	Used to check for correct X plane between 74A314208 plates.
177	Bushing	Used to check for correct X plane between left hand 74314208 plate.
178	L-pins	Aligns support locator (detail 23) in nominal position.
190	Plate	Part of Subassembly E, used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.
198	Screw	Attach (detail 19) to Subassembly E with (detail 199 and 200).
199	Swivel Washers	Used on forward and aft side of (detail 19) with (detail 198 and 200) to attach (detail 19) to subassembly E.
200	Nuts	Used on forward side of (detail 19) with (detail 198) to attach (detail 19) to Subassembly E.
215	Screws	Adjusts center to center distance in right hand drag brace area.
240	Plate	Used to support and lift Subassembly E.
242	Adjusting Screws	Used to adjust (detail 394 or 396) into right hand drag brace fitting.
243	Adjusting Screws	Used with (detail 242) to adjust (detail 393 or 395) into right hand trunnion fitting.
244	Clamp	Used to Secure Subassembly E to (detail 20) and (detail 240).
245	Bolt	Used to secure (detail 244) to (detail 240).
248	Adjusting Screws	Used to adjust height of Subassembly E from (detail 240).
261	Bushing	Used to align shaft (detail 620) for correct X plane on Subassembly E.
262	Bushing	Used to check for correct X plane location in left and right hand drag brace area.
263	Bushings	Used to check for correct X plane location in left and right hand trunnion area.

Figure 11. Trunnion Bearing Third Oversize Sleeve Installation (Sheet 5)

Detail No.	Name	Function
264	L-Pins	Used to secure (detail 192) and (detail 20) in drag brace area.
267	Screws	Used to lock in place (detail 192) and (detail 20).
270	Bushing	Used to guide (detail 213) into Subassembly A.
271	Screw	Used to secure (detail 382) to (detail 190).
272	Holding Pin Bushing	Used to check for correct X plane location in left hand trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
275	Shafts	Used to support Subassembly A in Subassembly E secured with (detail 147).
276	Bushings	Installed into (detail 191 and 393), secured to (detail 393 or 395) and (detail 394 or 396) with (detail 278).
278	Screws	Used to secure (detail 276) to (detail 393 or 395) and (detail 394 or 396).
280	Caps	Used to take up the slack in Z plane in drag brace area. Secured with (detail 281 and 287).
281	Screw	Used to secure (detail 280) to left hand drag brace, 74A314612.
284	Screw	Used to secure (detail 292) to right hand trunnion fitting.
285	Nuts	Used to lock (detail 391) into (detail 192).
287	Screw	Used to secure (detail 280) and take up slack between 74A314612 and (detail 272) in left hand drag brace area.
292	Cap	Used to take up the slack in Z plane in right hand trunnion fitting.
309	Clamp Assemblies	Used to secure 74A314612 and 74A314619 longeron.
310	Nuts	Used to tighten up (detail 309) in trunnion and drag brace area.
311	Jacks	Used to take up slack between (detail 309) and 74A314612 and 74A314619 longeron.
312	Cap Screws	Used to attach (detail 313, 314, 315 and 316) to Subassembly E.
313	Block	Attached to (detail 193) and used as support for (detail 309).
314	Block	Attached to (detail 192) and used as support for (detail 309).

Figure 11. Trunnion Bearing Third Oversize Sleeve Installation (Sheet 6)

Detail No.	Name	Function
315	Block	Attached to (detail 190) and used as support for (detail 309).
316	Block	Attached to (detail 191) and used as support for (detail 309).
317	Retaining Screws	Used to secure left and right hand longeron 74A314612 to Subassembly E.
318	Jack	Used to help secure right hand longeron 74A314612 to Subassembly E.
319	Cap Screw	Used to attach (detail 24) to (detail 193).
320	Jack	Used to help secure left hand longeron 74A314612 to Subassembly E.
321	Cap Screw	Used to attach (detail 25) to (detail 192).
322	Retaining Screws	Used to secure left and right hand trunnion support 74A314235 to Subassembly E.
323	Jack	Used to help secure left hand trunnion support 74A314235 to Subassembly E.
324	Cap Screw	Used to attach (detail 26) to (detail 190).
325	Jack	Used to help secure right hand trunnion support 74A314235 to Subassembly E.
326	Cap Screw	Used to attach (detail 27) to (detail 191).
331	Motor	Used to operate the system.
332	Block	Attached to Subassembly E and used as a guide for Subassembly H.
334	Lock Button	Used to lock Subassembly H into place on Subassembly E.
335	Clevis	Used to attach Subassembly H to Subassembly A, secured with (detail 404).
354	Hoses	Used to provide air pressure to motor (detail 331).
382	Stop	Used to hold (detail 270) in place with (detail 271).
391	Plug	Third oversize. Used to line up left hand drag brace bearing 74A314663, with (detail 285).
393	Sleeve Fitting	Third oversize. Installed into (detail 191), secured to (detail 276) with (detail 284).
394	Sleeve Fitting	Third oversize. Installed into (detail 193), secured to (detail 276) with (detail 278).

Figure 11. Trunnion Bearing Third Oversize Sleeve Installation (Sheet 7)


Detail No.	Name	Function
395	Sleeve Fitting	Used in place of (detail 393) if it will not install in trunnion fitting.
396	Sleeve Fitting	Used in place of (detail 394) if it will not install in drag brace fitting.
404	Shoulder Screw	Used to secure (detail 335) and Subassembly H.
423	Washer	Used with cap screw to adjust dovetail slide (detail 606) up or down to position shaft (detail 260 or 275) in trunnion area.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
478	Fittings	Used to connect hoses (detail 35) to motor (detail 331) when installed on Subassembly A.
550	Lift Platform	Used to lift Subassembly E up or down.
599	Knob	Used to secure (detail 45) to lift platform (detail 550) in trunnion area.
601	Guide	Used to align Subassembly E when not attached to aircraft and supports either (detail 260 or 275) in trunnion area.
602	Shaft	Used to support Subassembly E when not attached to aircraft.
603	Plate	Attached to (detail 550) with two cap screws, also as a supporting plate for (detail 607).
604	Guide	Used to align Subassembly E when not attached to aircraft and supports either (detail 260 or 275) in drag brace area.
605	Knob	Used to secure guide (detail 604) onto dovetail slide (detail 607).
606	Dovetail Slide	Used to make adjustments on leveling Subassembly E in trunnion area when not attached to aircraft.
607	Dovetail Slide	Used to make adjustments on leveling Subassembly E in drag brace area when not attached to aircraft.
608	Nose Dowel Pins	Used to align guide (detail 604) into bullet nose bushings (detail 609) which are installed in dovetail slide (detail 607).
609	Bullet Nose Bushings	Used to align nose dowel pins (detail 608) which are installed in guide (detail 604).
614	Guide Pin	Used to align plate (detail 603) up with lift platform (detail 550).
LEGEND		
 Details are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set.		

Figure 11. Trunnion Bearing Third Oversize Sleeve Installation (Sheet 8)

34. **COLD WORKING TRUNNION.** Figure 12. Hydraulic Pump Assembly, Pneumatic, 74D110323-1001, is used to energize ENERPAC RCH #603 cylinder during cold working per A1-F18AC-SRM-200, WP004 18.

NOTE

Left and right procedures the same.

a. Attach plate (detail 11) to Subassembly E with cap screw (detail 239), detail A.

b. Slide Subassembly A on to plate (detail 11), detail A.

c. Place two o-rings (detail 236) onto sleeve (detail 116). Slide sleeve (detail 116) inside coupling (detail 114). Screw coupling (detail 114) into Subassembly A. Screw cap (detail 115) onto coupling (detail 114), detail B.

d. On Subassembly L, push sliver button (detail 434) in to activate the system. Adjust pressure regulator (detail 446) to 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until it is in line with hole opening in trunnion fitting, 74A314325. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, detail C.

e. Remove nut (detail 113) from shaft (detail 104).

f. Install ENERPAC RCH #603 cylinder onto Subassembly A and secure it by tightening nut (detail 113). Support ENERPAC RCH #603 by placing Subassembly J under it and placing it on upper face on right hand side of fixture (detail 31).

g. Adjust the height of Subassembly J by loosening T-screw (detail 13) and either raising or lowering shaft (detail 216) so that the support fitting (detail 220) is supporting the hydraulic cylinder, detail A.

h. Loosen nut (detail 111) to the end of bolt (detail 110). Insert split sleeve, TD761G-35320 SPL from outboard side into trunnion fitting, 74A314235, detail A.

i. Insert mandrel, TD761U-27 through split sleeve, TD761G-35320 SPL and screw onto bolt (detail 110). Tighten up nut (detail 111) to take up slack, detail A.

j. Energize ENERPAC RCH #603 cylinder to pull mandrel, TD761U-27 through split sleeve TD761G-35320 SPL into trunnion fitting, 74A314235, detail A.

k. Check hole diameter in trunnion fitting 74A314235, using GO/NO GO plug gage, TD216G5-353.

l. Removing Subassembly A.

(1) Loosen nut (detail 111) and unscrew mandrel, TD761U-27 from bolt (detail 110), detail A.

(2) Remove split sleeve, TD761G-35320 SPL from trunnion fitting 74A314235, detail A.

(3) Remove nut (detail 113) from shaft (detail 104) and remove ENERPAC RCH #603 cylinder. Screw nut (detail 113) onto shaft (detail 104), detail A.

(4) On Subassembly L, turn LIFT knob switch to DRIVE to activate lift cycle. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DOWN and lower Subassembly A until it clears trunnion fitting, 74A314235, detail C.

(5) Slide Subassembly A from plate (detail 11).

(6) Remove plate (detail 11) from Subassembly E by removing cap screw (detail 239), detail A.

(7) Remove Subassembly J from fixture (detail 31), detail A.

(8) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, detail C.

(9) Do support final reaming after cold working procedure, this WP.

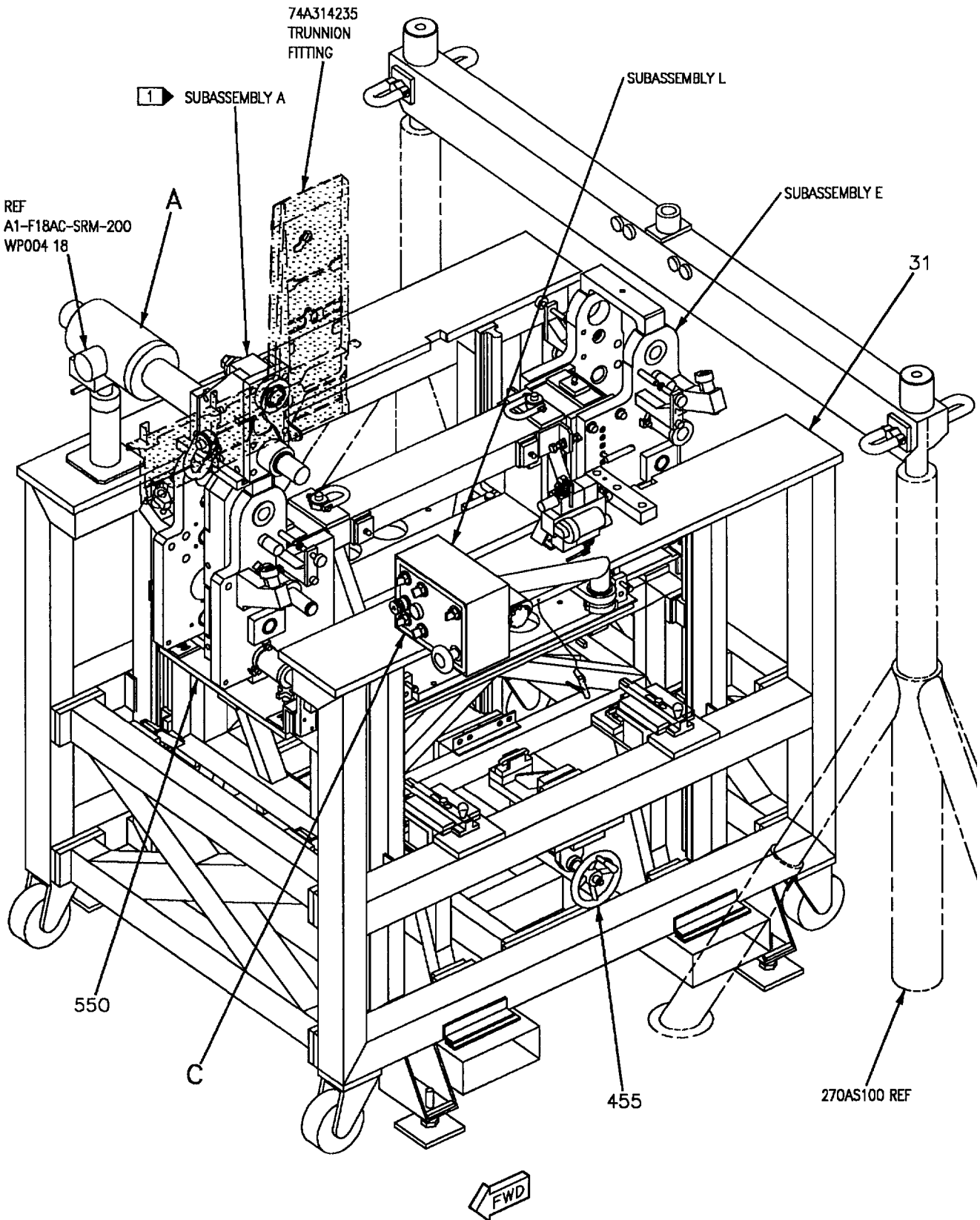


Figure 12. Cold Working Trunnion (Sheet 1)

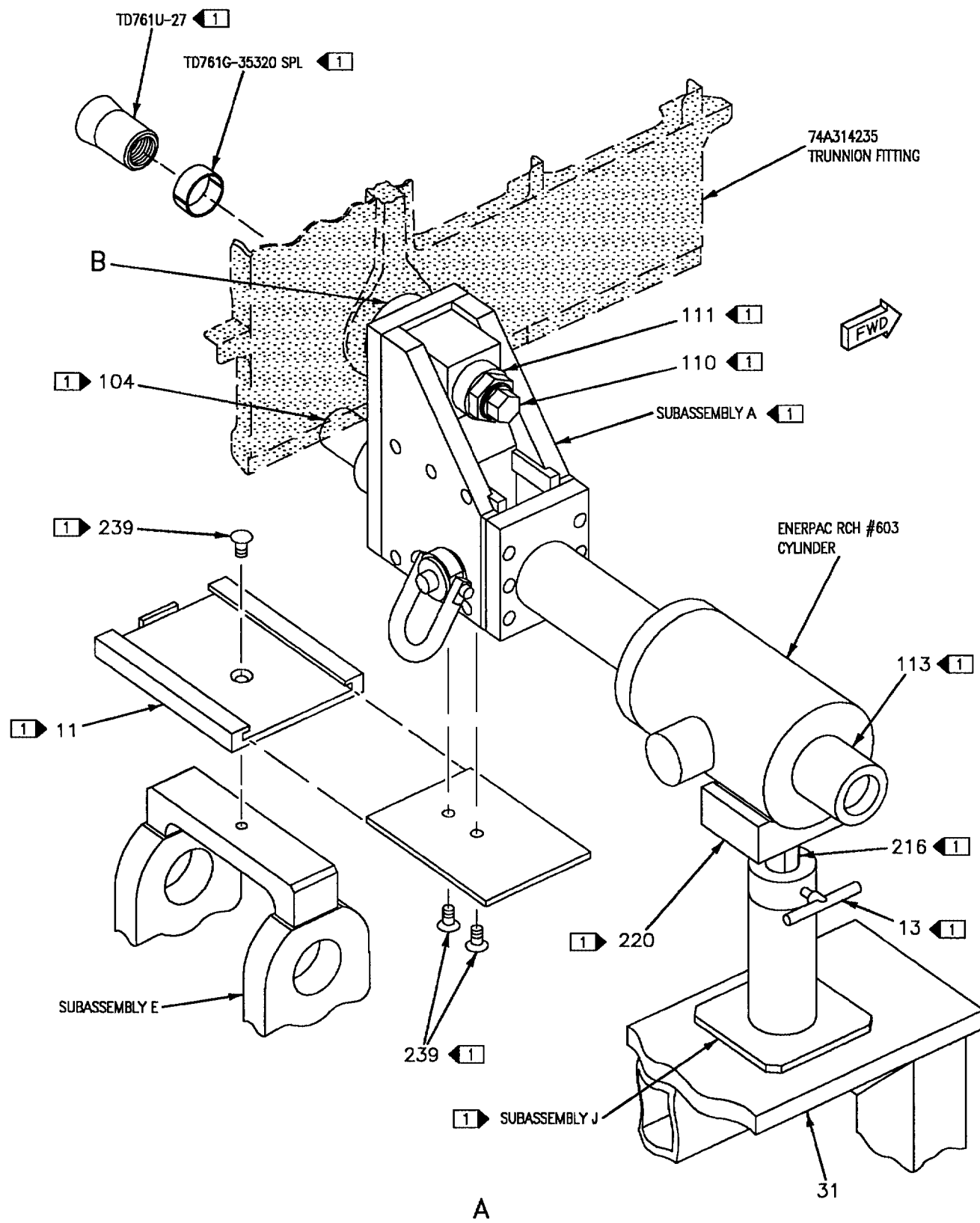


Figure 12. Cold Working Trunnion (Sheet 2)

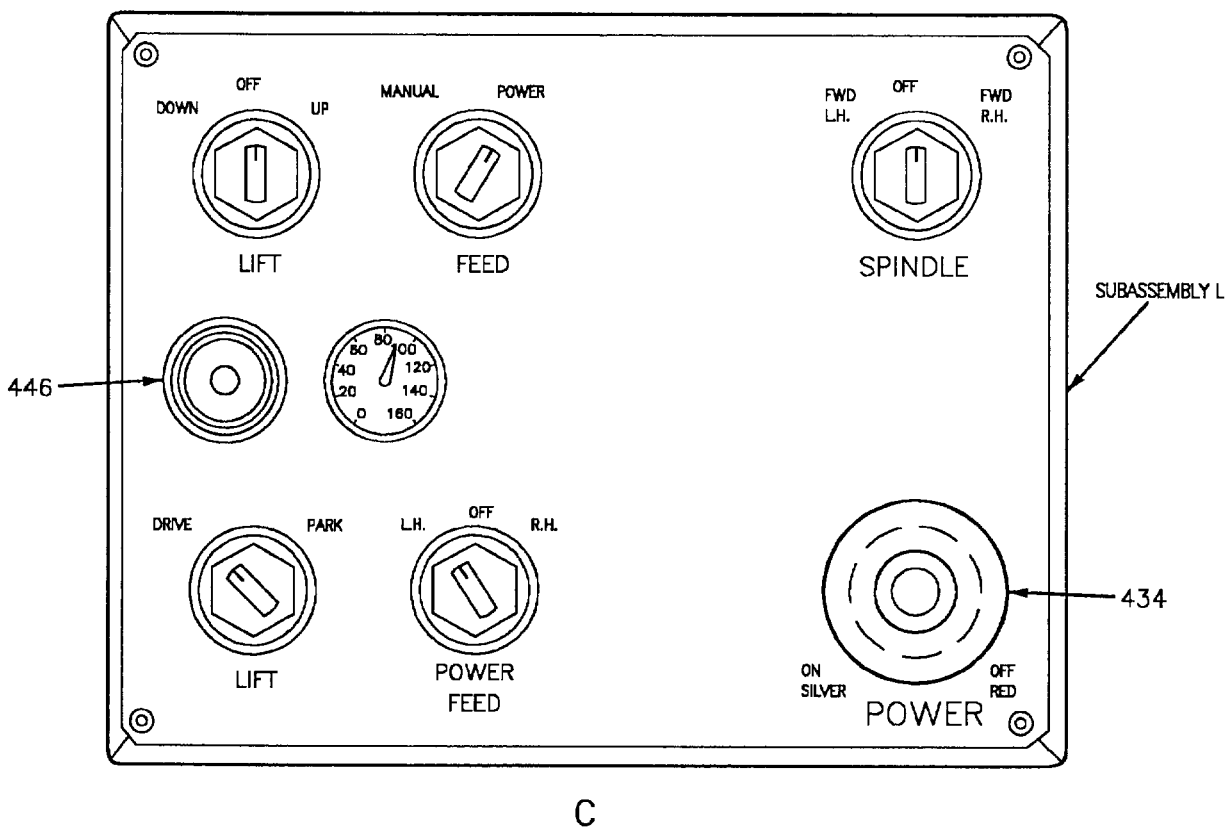
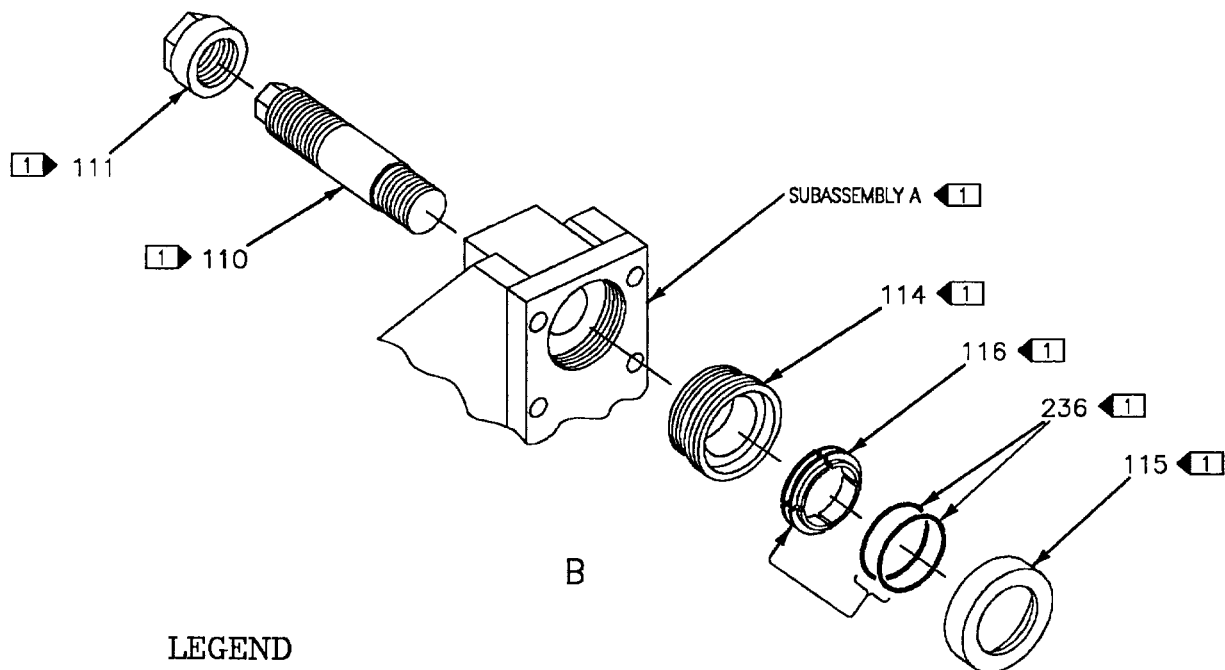


Figure 12. Cold Working Trunnion (Sheet 3)

Detail No.	Name	Function
Subassembly A 1	Support Assembly	Used to cold work oversize trunnion bearing fitting, 74A314235
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly J 1	Support Stand	Used to support and align ENERPAC RCH #603 cylinder.
Subassembly L	Control Panel	Houses Control to operate locating fixture.
ENERPAC RCH #603	Cylinder (Depot Furnished)	Used to operate (detail 104) by pulling it inboard to open up hole in trunnion fitting.
TD216G5-353 1	Go/No Go Gage	Used to check hole diameter in trunnion fitting, 74A314235.
TD761G-35320 SPL 1	Split Sleeve	Used in hole diameter in trunnion fitting, 74A314235.
TD761U-27 1	Mandrel	Used to enlarge hole in trunnion fitting, 74A314235.
11 1	Plate	Used to secure Subassembly A to Subassembly E.
13 1	T-Screw	Used to hold (detail 216) in position.
31	Fixture	Used to support Subassembly J and Subassembly E.
104 1	Shaft	Used to align ENERPAC RCH #603 cylinder and drive Subassembly A.
110 1	Bolt	Used to secure TD761U-27 mandrel to Subassembly A.
111 1	Nut	Used to take up slack between (detail 110) and (detail 171).
113 1	Nut	Used to secure ENERPAC RCH #603 cylinder to Subassembly A.
114 1	Coupling	Used to align (detail 110) and house (detail 116) and (detail 236).
115 1	Cap Screw	Used to secure (detail 114) to Subassembly A.
116 1	Sleeve	Used to house (detail 236) and align (detail 110).
216 1	Shaft	Used with (detail 220) to support ENERPAC RCH #603 cylinder.
220 1	Support Fitting	Supports ENERPAC RCH #603 cylinder with (detail 216).
236 1	O'Rings	Used with (detail 116) to align TD761U-27 mandrel.

Figure 12. Cold Working Trunnion (Sheet 4)



Detail No.	Name	Function
239 	Cap Screw	Used to secure (detail 11) to Subassembly E.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
455	Handcrank	Used to manual move (detail 550) up or down.
550	Lift Platform	Used to lift Subassembly E up or down.
LEGEND		
 Parts are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set.		

Figure 12. Cold Working Trunnion (Sheet 5)

35. SUPPORT FINAL REAMING AFTER COLD WORKING. Figure 13.

NOTE

Left and right procedures the same.

a. Reinstall Subassembly E onto aircraft.

(1) On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn Lift knob switch to UP and LIFT Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 12, detail C.

(2) Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support, 74A314325.

(3) Install sleeve fitting (detail 393) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 393), install sleeve fitting (detail 395), figure 11, detail A.

(4) Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand drag brace fitting, 74A314612.

(5) Install sleeve fitting (detail 394) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 394), install sleeve fitting (detail 396), figure 11, detail B.

(6) On left side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(7) On right side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(8) On left side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp

assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(9) Slide plug (detail 298) 1st oversize or (detail 299) 2nd oversize through 2.751 diameter hole in plate (detail 192) until it engages left hand drag brace, 74A314612. Secure plug (detail 298) 1st oversize of (detail 299) 2nd oversize by locking it in place with two nuts (detail 285), figure 9, detail B.

(10) Secure plate (detail 193) to right hand drag brace, 74A314612 fitting by installing cap (detail 280) and attaching it with screw (detail 281), figure 13, detail B.

(11) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion fitting 74A314325 between retaining screw (detail 322) and jack (detail 323), figure 7, detail F.

(12) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion fitting 74A314325 between retaining screw (detail 322) and jack (detail 325), figure 7, detail F.

(13) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 318), figure 7, detail G.

(14) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 320), figure 7, detail G.

(15) On left side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(16) On right side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(17) On left side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack

(detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(18) On right side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(19) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 7, detail K.

b. Ream trunnion fitting, 74A314325.

(1) Feed Subassembly A as far as possible to the right side using feed from Subassembly H, figure 11, detail A.

(2) Loosen upper two set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 13, detail C.

(3) Pivot Subassembly A fwd to gain access to install bushing (detail 270) in upper portion of plate (detail 192).

(4) Install stop (detail 382) to hold bushing (detail 270) in place by attaching stop (detail 382) with screw (detail 271), figure 7, detail E.

(5) Insert driver, SPT6-RE374314235TD into bushing (detail 270) and position as far outboard as possible, figure 13, detail F.

(6) Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 13, detail C.

(7) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 7, detail N.

(8) Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in figure 7, detail A. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 7, detail A.

(9) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

(10) On Subassembly L, turn LIFT knob switch to PARK position, figure 7, detail S.

(11) Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

(12) Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 191) locking it in place with Subassembly A, figure 7, detail A.



Make sure hoses (detail 354) are connected to proper inlets.

(13) Connect hoses (detail 354) to motor (detail 331).

(14) Install reamer, SPT17-RE374314235TD between plate (detail 190) and left hand trunnion fitting 74A314235, figure 13, detail A.

(15) Slide reamer, SPT17-RE374314235TD onto driver, SPT6-RE374314235TD and rotate 90° to lock it in place, figure 13, detail B.

(16) On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position and turn LIFT knob to DRIVE position. Turn POWER FEED knob switch to L.H., figure 7, detail S.

(17) Power feed reamer, SPT17-RE374314235TD into hole in left hand trunnion fitting, 74A314235 and ream to 2.1940 diameter, figure 13, detail A.

(18) On Subassembly L, turn SPINDLE knob switch to OFF position, figure 7, detail S.

(19) Back reamer, SPT17-RE374314235TD out of hole in left hand trunnion fitting, 74A314235 and feed Subassembly A as far to the right side by turning SPINDLE knob switch on Subassembly L to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 13, detail A and figure 7, detail S.

(20) Unlock reamer, SPT17-RE374314235TD by rotating 90° and slide it between plate (detail 190) and left hand trunnion fitting 74A314235, figure 13, detail A and B.

(21) Inspect diameter of bore/reamed hole in trunnion fitting, 74A314235 to 2.1940 inch diameter with an inside caliper micrometer.



Dry Cleaning Solvent, P-D-680, Type II

25

(22) Clean diameter surface of bore/reamed hole in trunnion fitting 74A314235, using dry cleaning solvent.

(23) Wipe and dry with clean dry cheesecloth.

c. Third pass reaming after cold working.

(1) Install reamer, SPT18-RE374314235TD between plate (detail 190) and left hand trunnion fitting 74A314235, figure 13, detail A.

(2) Slide reamer, SPT 18-RE374314235TD onto driver SPT6-RE374314235TD and rotate 90° to lock it in place, figure 13, detail B.

(3) On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position and turn LIFT knob to DRIVE position. Turn POWER FEED knob switch to L.H., figure 7, detail S.

(4) Power feed reamer, SPT18-RE374314235TD into hole in left hand trunnion fitting, 74A314235 and ream to 2.1996 diameter, figure 13, detail A.

(5) On Subassembly L, turn SPINDLE knob switch to OFF position, figure 7, detail S.

(6) Back reamer, SPT 18-RE374314235TD out of hole in left hand trunnion fitting 74A314235 and feed Subassembly A as far to the right side by turning SPINDLE knob switch on Subassembly L to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 13, detail A and figure 7, detail S.

(7) Unlock reamer, SPT18-RE374314235TD by rotating 90° and slide it between plate (detail 190) and left hand trunnion fitting 74A314235, figure 13, detail A and B.

(8) Feed Subassembly A as far as possible to the right side to remove driver, SPT6-RE374314235TD from Subassembly A by removing set screws (detail 158).

(9) Move driver, SPT6-RE374314235TD as far outboard as possible while remaining in bushing (detail 270), figure 13, detail A.

(10) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 7, detail A.

(11) Pivot Subassembly A forward to gain access to remove driver, SPT6-RE374314235TD from bushing (detail 270), figure 13, detail A.

(12) Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 7, detail A.

(13) Disconnect hoses (detail 354) from motor (detail 331).

(14) Slide Subassembly A as far as possible to the right side of Subassembly E, still clearing plate (detail 191).

(15) On Subassembly L, turn LIFT knob switch to PARK position, figure 7, detail S.

(16) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 191).

(17) Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame, figure 7, detail A.

(18) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

(19) Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334). Remove Subassembly H through lower hole in plate (detail 192), figure 7, detail A.

(20) Attach Subassembly H to right side of tool frame.

(21) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to its lowest position, figure 7, detail S.

(22) Inspect diameter of bore/reamed hole in trunnion fitting 74A314235 to 2.1996 inch diameter with an inside caliper micrometer.

(23) Clean diameter surface of bore/reamed hole in trunnion fitting 74A314235, using dry cleaning solvent.

(24) Wipe and dry with clean dry cheesecloth.

36. OVERSIZE SLEEVE INSTALLATION.

NOTE

Left and right procedures the same.

a. Machine outside diameter of bearing sleeve 74A314395, for 0.0015 to 0.0040 interference fit in hole in trunnion fitting, 74A314235.

b. Attach support (detail 12) to Subassembly E with cap screw (detail 668) and washer (detail 669), figure 5, detail A.



Sealing Compound, High
Temperature, MIL-S-83430

26

c. Install sleeve fitting (detail 127) into bearing sleeve, 74A314395-2009. Apply fillet seal around peripheral of bearing sleeve. For application of fillet seal (A1-F18AC-SRM-200, WP011 00).

d. Insert threaded stud (detail 128) with washer (detail 144) and nut (detail 143) through ENERPAC RCH #202 cylinder and line up with hole in trunnion fitting 74A314235, figure 5, detail A.

e. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until threaded stud (detail 128) lines up with hole in trunnion fitting 74A314235. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 7, detail S.

f. Insert threaded stud (detail 128) with washer (detail 144) and nut (detail 143) and ENERPAC RCH #202 cylinder through sleeve fitting (detail 127), figure 5, detail A.

g. Screw cap (detail 126) onto threaded stud (detail 128) from outboard side taking up the slack.

h. Energize cylinder to install bearing sleeve 74A314395-2009 into trunnion fitting, 74A314235.

i. Unscrew cap (detail 126) from threaded stud (detail 128).

j. Slide threaded stud (detail 128) with washer (detail 144) and nut (detail 143) from sleeve fitting (detail 127), figure 5, detail A.

k. On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 7, detail S.

l. Remove threaded stud (detail 128), washer (detail 144) and nut (detail 143) from ENERPAC RCH #202 cylinder.

m. Remove ENERPAC RCH #202 cylinder from support (detail 12), figure 5, detail A.

n. Remove cap screw (detail 668) and washer (detail 669), holding support (detail 12) from Subassembly E.

o. Remove support (detail 12) from Subassembly E.

p. Reinstall Subassembly E.

(1) On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 7, detail S.

(2) Install holding pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left hand trunnion support area, figure 7, detail A.

(3) Install holding pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left hand drag brace area, figure 7, detail B.

(4) Secure plate (detail 191) to trunnion support fitting by installing cap (detail 292) and attaching it with screw (detail 284), figure 7, detail A.

(5) Slide plug (detail 391) through 2.751 diameter hole in plate (detail 192) until it engages left hand drag brace fitting, 74A314612. Secure plug (detail 391) by locking it in place with two nuts (detail 285), figure 11, detail B.

(6) Secure left hand drag brace, 74A314612 fitting by installing cap (detail 280) and attaching it with screw (detail 287), figure 11, detail B.

(7) Secure plate (detail 193) to right hand drag brace, 74A314612 fitting tag installing cap (detail 280) and attaching it with screw (detail 281), figure 11, detail B.

(8) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 323), figure 7, detail F.

(9) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 325), figure 7, detail F.

(10) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 318), figure 7, detail G.

(11) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 320), figure 7, detail G.

(12) On left side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(13) On right side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(14) On left side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack

(detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(15) On right side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(16) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 7, detail K.

(17) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 7, detail N.

(18) Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in figure 7, detail A. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 7, detail A.

(19) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

(20) On Subassembly L, turn LIFT knob switch to PARK position, figure 7, detail S.

(21) Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

(22) Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 191) locking it in place with Subassembly A, figure 7, detail A.



Make sure hoses (detail 354) are connected to proper inlets

(23) Connect hoses (detail 354) to motor (detail 331).

37. SLEEVE REAMING

NOTE

Left and right procedures the same.

a. Boring inside diameter of bearing sleeve.

(1) Feed Subassembly A as far as possible to the right side using feed from Subassembly H. If possible slide driver, SPT6-RE374314235TD through hole in (detail 190) and left hand trunnion fitting 74A314235, from outboard side, figure 9, detail E.

(2) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 7, detail A.

(3) Pivot Subassembly A forward to gain access to install driver, SPT6-RE374314235TD through bushing (detail 270) in upper portion of plate (detail 190) and against bottom of bearing sleeve 74A314395, figure 7, detail M.

(4) Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 7, detail A.

(5) Mount driver, SPT6-RE374314235TD into Subassembly A and lock it in place with two set screws (detail 158), figure 7, detail M.

(6) Install reamer, SPT23-RE374314235TD between plate (detail 190) and left hand trunnion fitting, 74A314235, figure 7, detail M.

(7) Slide reamer, SPT23-RE374314235TD onto driver, SPT6-RE374314235TD and rotate 90° to lock it in place, figure 7, detail M.

(8) Power feed reamer, SPT23-RE374314235TD into bearing sleeve 74A314395 to ream inside diameter to 1.8750 +.0016 -.0000 diameter, figure 7, detail M.

(9) On Subassembly L, turn SPINDLE knob switch to OFF position, figure 7, detail S.

(10) Back reamer, SPT23-RE374314235TD out of bearing sleeve 74A314395 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 7, detail S.

(11) Remove reamer, SPT23-RE374314235TD from between inboard side of trunnion fitting 74A314235 and Subassembly E, figure 7, detail M.

(12) Remove driver, SPT6-RE374314235TD from Subassembly A by removing two set screws (detail 158) and slide it between plate (detail 190) and left hand trunnion fitting 74A314235, figure 7, detail M.

(13) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A. Pivot Subassembly A forward to gain access to remove driver, SPT6-RE374314235TD from bushing (detail 270), figure 7, detail A.

(14) Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 7, detail A.

38. **SPOTFACING.** Spray mist coolant tank assembly RE874000002-1, is used during spotfacing per (A1-F18AC-SRM-200 WP004 16).

NOTE

Left and right procedure the same.

a. Slide Subassembly A as far as possible to the right hand side of Subassembly E, figure 7, detail P.

b. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 7, detail A.

c. Pivot Subassembly A forward to gain access to install shaft (detail 213) into bushing (detail 270) and against bottom of bearing sleeve 74A314395, figure 7, detail A.

d. Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 7, detail A.

e. From inboard side of Subassembly E, slide spacer (detail 214) onto shaft (detail 213) securing it with two set screws, figure 7, detail R.

f. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount shaft (detail 213) into Subassembly A and lock it in place with two set screws (detail 158), figure 7, detail P.

NOTE

Check cutter, SPT10-RE374314235TD for sharpness after each operation. Cutter may require resharpening.

g. Slide cutter, SPT10-RE374314235TD between Subassembly E and left hand trunnion fitting, 74A314235 onto shaft (detail 213). Rotate shaft (detail 213) 90° to lock it in place, figure 7, detail R.

h. Install shim (detail 21) onto cutter, SPT10-RE374314235TD using retaining ring (detail 16) to lock it in place, figure 7, detail R.

i. Slide Subassembly A as far as possible to the left side of Subassembly E and still clear plate (detail 190).

j. Set depth of spotfacer, SPT10-RE374314235TD according to the reading taken during paragraph 9, step q, with stop collar (detail 214), figure 7, detail R.

k. On Subassembly L, turn LIFT knob switch to PARK position, figure 7, detail S.

l. On Subassembly L, turn SPINDLE knob switch to FWD L H position and turn FEED knob switch to POWER position. Turn POWER FEED to L.H. position, figure 7, detail S.

m. Power feed cutter, SPT10-RE374314235TD to spotface bearing sleeve, 74A314395, figure 7, detail P.

n. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 7, detail S.

o. Back cutter, SPT10-RE374314235TD from face of bearing sleeve 74A314395 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 7, detail S.

p. Loosen two set screws attaching spacer (detail 214) onto shaft (detail 213), figure 7, detail R.

q. Remove shaft (detail 213) from Subassembly A by removing two set screws (detail 158). Unlock cutter, SPT10-RE374314235TD by rotating 90° and slide it between play (detail 190) and left hand trunnion fitting, 74A314235, figure 7, detail R.

r. Slide spacer (detail 214) from shaft (detail 213), figure 7, detail R.

s. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A. Pivot Subassembly A forward to gain access to remove shaft (detail 213), figure 7, detail A.

t. Rotate Subassembly A back to its upright position. Install (detail 275) through upper portion of Sub-

assembly E and tighten upper two set screws (detail 147), figure 7, detail A.

u. Disconnect hoses (detail 354) from motor (detail 331).

v. Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 190).

w. On Subassembly L, turn LIFT knob switch to PARK position, figure 7, detail S.

x. Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 191).

y. Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame.

z. Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

aa. Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334), figure 7, detail N. Remove Subassembly H through lower hole in plate (detail 192), figure 7, detail A. Attach Subassembly H to left side of tool frame.

ab. On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to its lowest position, figure 7, detail S.

ac. Remove Subassembly E.

(1) Disconnect hoses (detail 354) from Subassembly R.

(2) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 190).

(3) On Subassembly L, turn LIFT knob switch to PARK position, figure 7, detail S.

(4) Remove Subassembly R through lower 400 diameter hole in plate (detail 191).

(5) Install Subassembly R into bracket (detail 43) which is located on lower right hand side of tool frame.

(6) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

(7) Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334), figure 7, detail N. Remove Subassembly H through lower hole in plate (detail 192), figure 7, detail A. Attach Subassembly H to left side of tool frame with knob (detail 655).

(8) At right hand trunnion support 74A314235, remove screw (detail 284) and cap (detail 292) from sleeve fitting (detail 393) or (detail 395) figure 11, detail A.

(9) At left side drag brace support 74A314612, remove screw (detail 287) and cap (detail 280) from plug (detail 391), figure 11, detail B.

(10) At right side drag brace support 74A314612, remove screw (detail 281) and cap (detail 280) from sleeve fitting (detail 394 or 396), figure 11, detail B.

(11) On left side drag brace fitting, 74A314612, remove two nuts (detail 285) holding plug (detail 391) to plate (detail 192). Remove plug (detail 391) from inboard side of plate (detail 192), figure 11, detail B.

(12) On left hand trunnion fitting 74A314235, remove retaining screw (detail 322) and jack (detail 323) attached to trunnion fitting, 74A314235. Remove cap screw (detail 324) and clamp (detail 26) from plate (detail 190), figure 7, detail F.

(13) On right hand trunnion fitting 74A314235, remove retaining screw (detail 322) and jack (detail 325) attached to trunnion fitting, 74A314235. Remove cap screw (detail 326) and clamp (detail 27) from plate (detail 191), figure 7, detail F.

(14) On left hand side of longeron 74A314612, remove retaining screw (detail 317) and jack (detail 320) attached to longeron, 74A314612. Remove cap screw (detail 321) and clamp (detail 25) from plate (detail 192), figure 7, detail G.

(15) On right hand side of longeron 74A314612, remove retaining screw (detail 317) and jack (detail 318) attached to longeron, 74A314612. Remove cap screw (detail 319) and clamp (detail 24) from plate (detail 193), figure 7, detail G.

(16) On right hand side of longeron 74A314619, remove clamp assembly (309) and jack (detail 311) attached to longeron, 74A314619. Remove two screw

(detail 312) and block (detail 316) from plate (detail 191), figure 7, detail H.

(17) On left hand side of longeron 74A3124619, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314619. Remove two screws (detail 318) and block (detail 315) from plate (detail 190), figure 7, detail H.

(18) On left hand side of longeron 74A314612, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314612. Remove two screws (detail 312) and block (detail 314) from plate (detail 192), figure 7, detail J.

(19) On right hand side of longeron 74A314612, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314612. Remove two screws (detail 312) and block (detail 313) from plate (detail 193), figure 7, detail J.

(20) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 7, detail K.

(21) On right hand trunnion support 74A314235, remove screw (detail 278) three places and bushing (detail 276) from inboard side of plate (detail 191). Remove sleeve fitting (detail 393 or 395) from outboard side of plate (detail 191), figure 11, detail A.

(22) On right hand drag brace fitting, 74A314612, remove screw (detail 278) three places and bushing (detail 276) from inboard side of plate (detail 193). Remove sleeve fitting (detail 394 or 396) from outboard side of plate (detail 193), figure 11, detail B.

(23) In left hand drag brace area, 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 11, detail B.

(24) In left hand trunnion support area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 11, detail A.

(25) If repair is complete, do locating fixture removal, this WP.

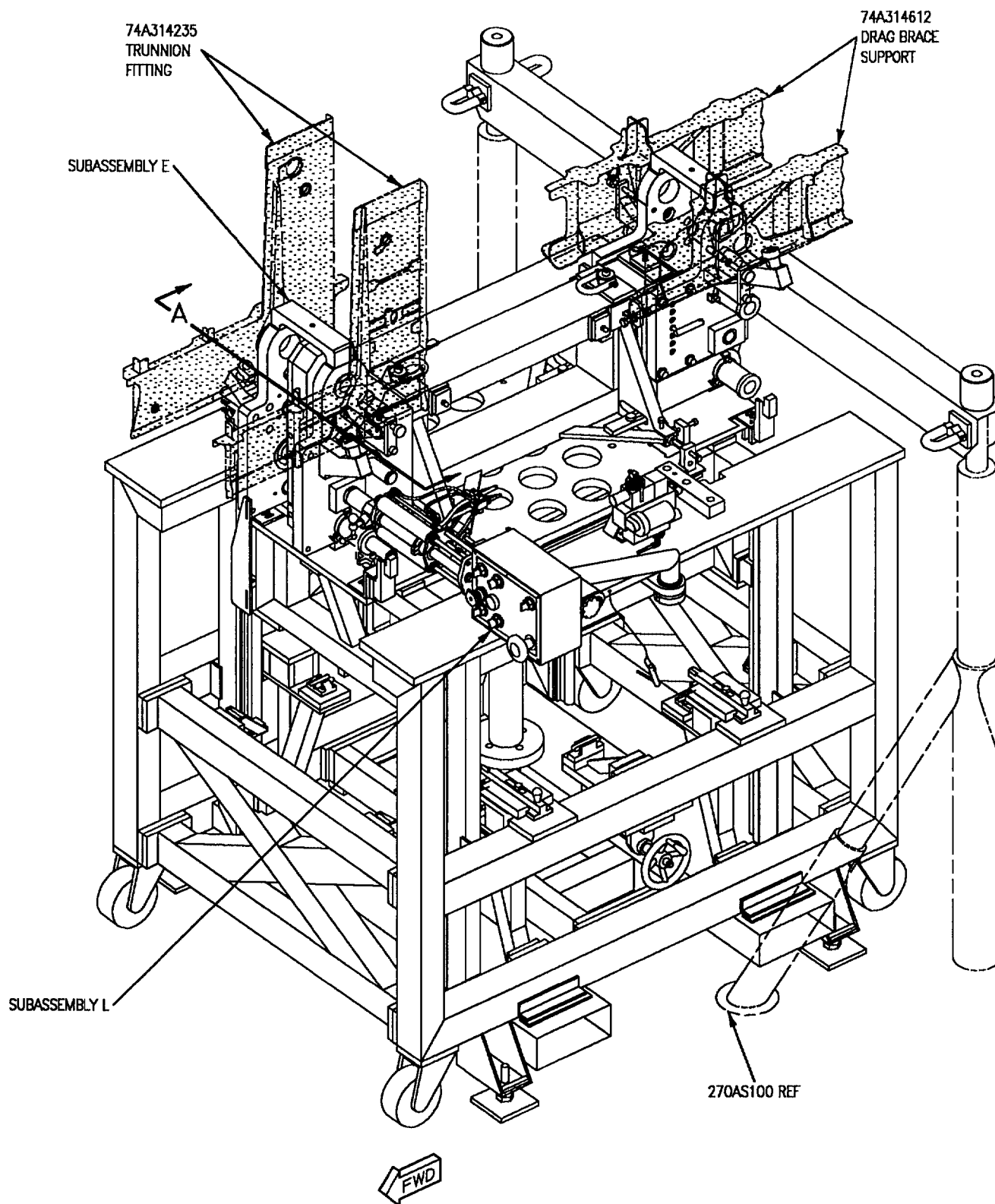


Figure 13. Support Final Reaming After Cold Working (Sheet 1)

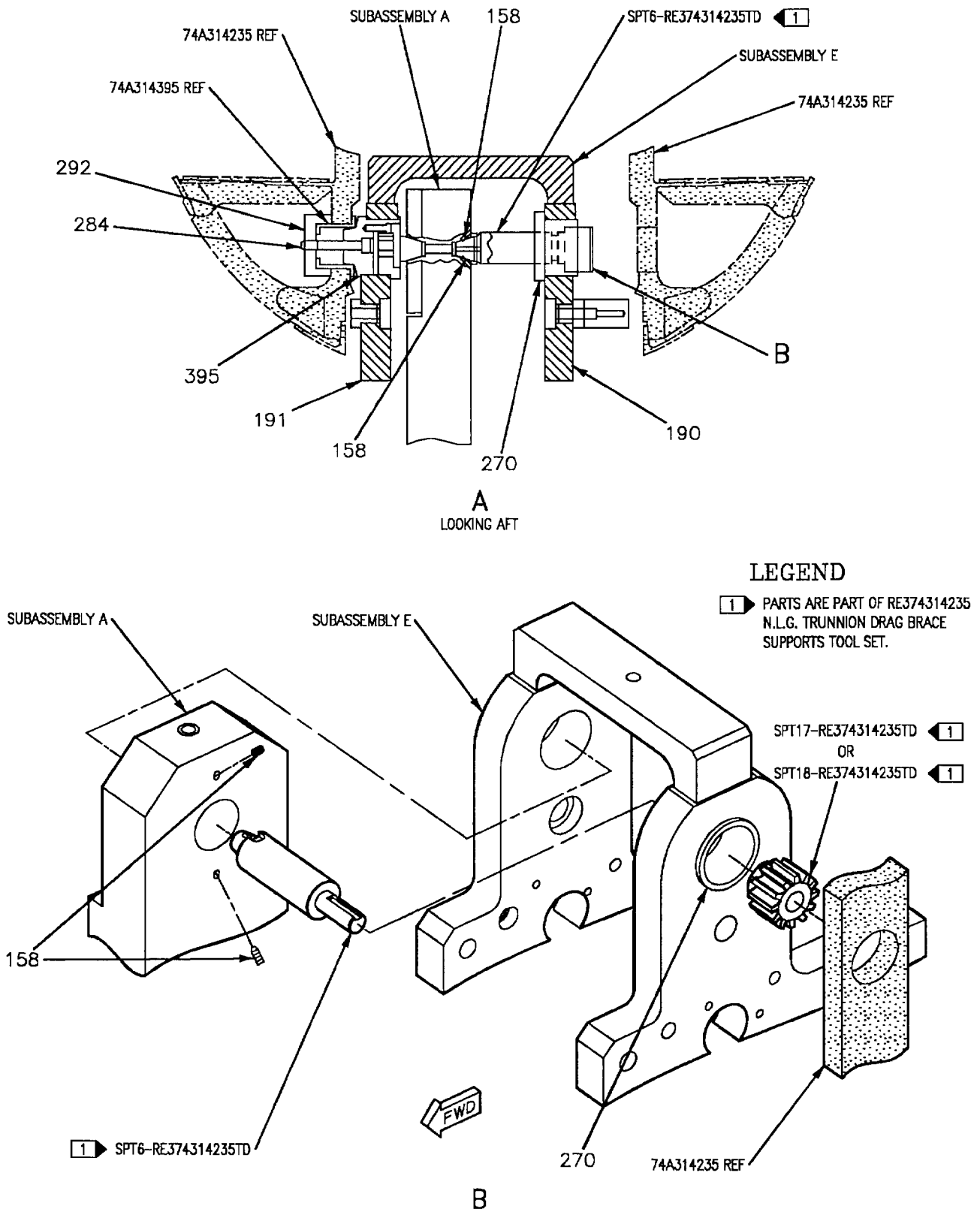


Figure 13. Support Final Reaming After Cold Working (Sheet 2)









Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing sleeves.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses control to operate locating fixture.
SPT6- RE374314235TD 	Driver	Used to align and secure reamers in cutting and spotfacing operations.
SPT10- RE374314235TD 	Cutter	Used to spotface trunnion and drag brace bearing sleeves.
SPT17- RE374314235TD 	Reamer	Used for 3rd oversize reaming in trunnion fitting, 74A314235 before cold working.
SPT18- RE374314235TD 	Reamer	Used for 3rd oversize, and pass reaming in trunnion fitting, 74A314235 after cold working
SPT23- RE374314235TD 	Reamer	Used to ream inside diameter of trunnion bearing sleeve, 74A314395.
ENERPAC RCH #202	Cylinder (Depot Furnished)	Used to operate (detail 128) by pushing it outboard, installing trunnion bearing sleeve, 74A314395.
12 	Support	Used to support and align ENERPAC RCH #202 cylinder.
16 	Retaining Ring	Used to hold (detail 21) onto SPT10-RE374314235TD.
19	Jack Beam	Used to support the aircraft and secure Subassembly E using (details 198, 199 and 200).
21 	Shim	Used to align (detail 213) to inside diameter of 74A314395 bearing sleeve.
24	Clamp	Used to hold 74A314612 right hand trunnion and (detail 193) in the correct position, using (detail 319).
25	Clamp	Used to hold 74A31462 left hand trunnion and (detail 192) in the correct position using (detail 321).

Figure 13. Support Final Reaming After Cold Working (Sheet 3)







Detail No.	Name	Function
26	Clamp	Used to hold 74A314235 left hand drag brace and (detail 190) in the correct position using (detail 324).
27	Clamp	Used to hold 74A314235, right hand drag brace and (detail 191) in the correct position using (detail 326).
43	Bracket	Holds Subassembly R on the lower right hand side of the tool frame when not using on Subassembly E.
45	Welded Assembly	Used to align Subassembly E when not attached to aircraft in the trunnion area.
126 	Cap	Used to secure (detail 128) into trunnion fitting 74A314235, bearing sleeve.
127 	Sleeve Fitting	Used to align (detail 128) through 74A314395 bearing sleeve.
128 	Threaded Stud	Used to secure sleeve fitting (detail 127) to (detail 126).
143 	Nut, Hex	Used to secure (detail 128) and (detail 144) onto ENERPAC RCH #202 cylinder.
144 	Washer	Used with (detail 143) to take up slack on (detail 128).
158	Set Screw	Used to lock in place SPT6-RE374314235TD and (detail 213) into Subassembly A.
190	Plate	Part of Subassembly E, used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.
198	Screw	Attach (detail 19) to Subassembly E with (details 199 and 200).
199	Swivel Washers	Used on forward and aft side of (detail 19) with (details 198 and 200) to attach (detail 19) to subassembly E.
200	Nuts	Used on forward side of (detail 19) with (detail 198) to attach (detail 19) to Subassembly E.
213 	Shaft	Used to align and secure SPT10-RE374314236TD in spotfacing on trunnion sleeve.

Figure 13. Support Final Reaming After Cold Working (Sheet 4)


Detail No.	Name	Function
214 	Spacer	Used to gage amount that (detail 21) can take off of trunnion sleeve, 74A314395.
261	Bushing	Used to align (detail 602) in Z plane.
270	Bushing	Used to guide (detail 213) into Subassembly A.
271	Screw	Used to secure (detail 382) to (detail 190).
272	Holding Pin Bushing	Used to check for correct X plane location in left hand trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (details 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (details 190 and 192).
275	Shafts	Used to support Subassembly A in Subassembly E secured with (detail 147).
276	Bushings	Installed into (detail 191 and 193), secured to (details 302 or 303) and (detail 294 and 295) with (detail 278).
278	Screws	Used to secure (detail 276) to (details 294 or 295) and (detail 302 or 303).
280	Caps	Used to take up the slack in Z plane in drag brace area. Secured with (details 281 and 287).
281	Screw	Used to secure (detail 280) to left hand drag brace, 74A314612.
284	Screw	Used to secure (detail 292) to right hand trunnion fitting.
285	Nuts	Used to lock (detail 391) into (detail 192).
287	Screw	Used to secure (detail 280) and take up slack between 74A314612 and (detail 272) in left hand drag brace area.
292	Cap	Used to take up the slack in Z plane in right hand trunnion fitting
294	Sleeve Fitting	First oversize. Installed into (detail 193), secured to (detail 276) with (detail 278).
295	Sleeve Fitting	Second oversize. Installed into (detail 193), secured to (detail 276) with (detail 278).
297	Plug	Used to line up left hand drag brace sleeve 74A314663, with (detail 285).
301	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).

Figure 13. Support Final Reaming After Cold Working (Sheet 5)

Detail No.	Name	Function
302	Sleeve Fitting	First oversize. Installed into (detail 191), secured to (detail 276) with (detail 284).
303	Sleeve Fitting	Second oversize. Installed into (detail 191), secured to (detail 276) with (detail 284).
306	Plug	First oversize. Used to line up right hand trunnion bearing 74A314395, with (detail 285).
307	Plug	Second oversize. Used to line up right hand trunnion bearing 74A314395.
309	Clamp Assemblies	Used to secure 74A314612 and 74A314619 longeron.
310	Nuts	Used to tighten up (detail 309) in trunnion and drag brace area.
311	Jacks	Used to take up slack between (detail 309) and 74A314612 and 74A314619 longeron.
312	Screws	Used to attach (details 313, 314, 315 and 316) to Subassembly E.
313	Block	Attached to (detail 193) and used as support for (detail 309).
314	Block	Attached to (detail 192) and used as support for (detail 309).
315	Block	Attached to (detail 190) and used as support for (detail 309).
316	Block	Attached to (detail 191) and used as support for (detail 309).
317	Retaining Screws	Used to secure left and right hand longeron 74A314612 to Subassembly E.
318	Jack	Used to help secure right hand longeron 74A314612 to Subassembly E.
319	Cap Screw	Used to attach (detail 24) to (detail 193).
320	Jack	Used to help secure left hand longeron 74A314612 to Subassembly E.
321	Cap Screw	Used to attach (detail 25) to (detail 192).
322	Retaining Screws	Used to secure left and right hand trunnion support 74A314235 to Subassembly E.
323	Jack	Used to help secure left hand trunnion support 74A314235 to Subassembly E.
324	Cap Screw	Used to attach (detail 26) to (detail 190).

Figure 13. Support Final Reaming After Cold Working (Sheet 6)

Detail No.	Name	Function
325	Jack	Used to help secure right hand trunnion support 74A314235 to Subassembly E.
326	Cap Screw	Used to attach (detail 27) to (detail 191).
331	Motor	Used to operate the system.
332	Block	Attached to Subassembly E and used as a guide for Subassembly H.
334	Lock Button	Used to lock Subassembly H into place on Subassembly E.
335	Clevis	Attached to Subassembly H to Subassembly A, secured with (detail 404).
354	Hoses	Used to provide air pressure to motor (detail 331).
382	Stop	Used to hold (detail 270) in place with (detail 271).
383	Sleeve Fitting	Used in place of (detail 293), if it will not fit into drag brace fitting.
384	Sleeve Fitting	Used in place of (detail 294), if it will not install in drag brace fitting.
385	Sleeve Fitting	Used in place of (detail 295), if it will not install in drag brace fitting.
387	Sleeve Fitting	Used in place of (detail 301), if it will not fit into trunnion fitting.
388	Sleeve Fitting	Used in place of (detail 302), if it will not install in trunnion fitting.
389	Sleeve Fitting	Used in place of (detail 303), if it will not install in trunnion fitting.
391	Plug	Used to line up left hand drag brace bearing 74A314663, with (detail 285).
393	Sleeve Fitting	Third oversize. Installed into (detail 191), secured to (detail 276) with (detail 284).
395	Sleeve Fitting	Used in place of (detail 393) if it will not install in trunnion fitting.
404	Shoulder Screw	Used to secure (detail 335) and Subassembly H.
423	Washer	Used with cap screw to adjust dovetail guide (detail 606) up or down to position shaft (detail 260 or 275) in trunnion area.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.

Figure 13. Support Final Reaming After Cold Working (Sheet 7)

Detail No.	Name	Function
478	Fittings	Used to connect hoses (detail 354) to motor (detail 331) when installed on Subassembly A.
550	Lift Platform	Used to lift Subassembly E up or down.
599	Knob	Used to secure (detail 45) to lift platform (detail 550) in trunnion area.
601	Guide	Used to align Subassembly E when not attached to aircraft and supports either (details 260 or 275) in trunnion area.
602	Shaft	Used to align support Subassembly E when not attached to aircraft.
603	Plate	Attached to (detail 550) with two cap screws, also as a supporting plate for (detail 607).
604	Guide	Used to align Subassembly E when not attached to aircraft and supports either (details 260 or 275) in drag brace area.
605	Knob	Used to secure guide (detail 604) into dovetail slide (detail 607).
606	Dovetail Slide	Used to make adjustments on leveling Subassembly E in trunnion area when not attached to aircraft.
607	Dovetail Slide	Used to make adjustments on leveling Subassembly E in drag brace area when not attached to aircraft.
608	Nose Dowel Pins	Used to align guide (detail 604) into bullet nose bushings (detail 609) which are installed in dovetail slide (detail 607).
609	Bullet Nose Bushings	Used to align nose dowel pins (detail 608) which are installed in guide (detail 604).
614	Guide Pin	Used to align plate (detail 603) up with lift platform (detail 550).
LEGEND		
<div> <div>1</div> <div>Details are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set.</div> </div> <div> <div>2</div> <div>Detail 16 and 21 are part of SPT10-RE374314235TD Spotfacer Assembly.</div> </div>		

Figure 13. Support Final Reaming After Cold Working (Sheet 8)

39. DRAG BRACE THIRD OVERSIZE SLEEVE INSTALLATION. Figure 14.**40. SET UP.****NOTE**

Left and right procedures the same.

a. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn Lift knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 14, detail E.

b. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support, 74A314325.

c. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support, 74A314325. Install sleeve fitting (detail 393) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 393), install sleeve fitting (detail 395), figure 14, detail B.

d. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand drag brace fitting, 74A314612. Install sleeve fitting (detail 394) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 394), install sleeve fitting (detail 396), figure 14, detail A.

e. Place two L-pins (detail 264) in Nom position on plates (detail 192 and 193), figure 7, detail L.

f. Loosen bolt (detail 245) clamp (detail 244) four places that are positioned on plate (detail 240).

g. Use adjusting screws (detail 242, 243 and 248) four places, figure 7, detail L, so as to engage sleeve fitting (detail 393) into right hand trunnion fitting 74A314235 or sleeve fitting (detail 394) into right hand drag brace fitting 74A314612. If unable to install sleeve fitting (detail 393) into right hand trunnion fitting 74A314235 install sleeve fitting (detail 395), figure 14, detail B, or if unable to install sleeve fitting

(detail 394) into right hand drag brace fitting 74A314612, install sleeve fitting (detail 396), figure 14, detail A.

h. If center to center is off in right hand drag brace fitting 74A314612, pull L-pins (detail 264) on each side of Subassembly E. Loosen four screws (detail 267) on each side of Subassembly E. Adjust center distance by turning screw (detail 215) on each side of Subassembly E, figure 7, detail L, either by tightening or loosening until sleeve fitting (detail 394) can be engaged into bearing sleeve 74A3146121, figure 14, detail A. If unable to install sleeve fitting (detail 393) into right hand trunnion fitting 74A314235, install sleeve fitting (detail 395) or if unable to install sleeve fitting (detail 394) into right hand drag brace fitting 74A314612, install sleeve fitting (detail 396), figure 14, detail B.

NOTE

Make sure that spacing is within ± 0.030 . If not, engineering disposition has to be obtained for out of dimension repair.

i. Install L-pins (detail 264) into adjustment hole from -0.030 to +0.030 on each side of Subassembly E based upon if forward or aft adjustment was made, figure 7, detail L.

j. Torque screws (detail 267) four places on each side of Subassembly E to 60 ft lbs and clamp welded assembly (detail 20) with clamp (detail 244) with bolt (detail 245) four places, figure 7, detail L.

k. Install plug (detail 391) into 2.751 diameter hole in plate (detail 190) at left hand trunnion support, 74A314325. Secure plug (detail 391) by locking in place with two nuts (detail 285), figure 14, detail B.

l. Install bushing (detail 262) into plate (detail 192) and pin (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left hand drag brace area, figure 14, detail A.

m. Install bushing (detail 262) into plate (detail 193), figure 14, detail A.

n. Install bushing (detail 263) and pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left hand trunnion support area, figure 7, detail A.

o. Install bushing (detail 263) into plate (detail 191), figure 7, detail A.

p. Install Subassembly F onto both sides of Subassembly E by pinning it with two L-pins (detail 178).

q. Swing Subassembly F up into the nose landing gear bay then pin support (detail 23) by pinning it with two L-pins (detail 178) on both sides of Subassembly E, figure 7, sheet 1.

r. Check for correct X plane location, equal feel within ± 0.030 in nose landing gear bay at 74A314208 plates by inserting 0.250 inch feeler gage between L brackets (detail 176) and 74A314208 plate on right side and between bushing (detail 177) and 74A314208 plate on left side, figure 7, detail C.

s. Check for correct X plane location, equal feel within ± 0.030 at 74A314235 trunnion support area by inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support right side and between bushing (detail 272) and 74A314235 trunnion support on left side, figure 7, detail A.

t. If alignment check fails to meet requirements at 74A314235 trunnion support, shim as required between plate (detail 191) and sleeve fitting (detail 393) or (detail 395), figure 7, detail B.

u. Check for correct X plane location, equal feel within ± 0.030 at 74A314612 drag brace support area by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support right side and between bushing (detail 272) and 74A314612 drag brace support on the left side, figure 14, detail A.

v. If alignment check fails to meet requirements at 74A314235 drag brace support, shim as required between plate (detail 193) and sleeve fitting (detail 394) or (detail 396), figure 14, detail A.

w. Secure plate (detail 191) to trunnion support fitting installing cap (detail 292) by attaching it with screw (detail 284), figure 14, detail B.

x. Secure plate (detail 193) to right hand drag brace support by installing cap (detail 280) by attaching it with screw (detail 287), figure 14, detail A.

y. Secure Subassembly E to airframe.

(1) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion

fitting 74A314235 between retaining screw (detail 322) and jack (detail 323), figure 7, detail F.

(2) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion fitting 74A314235 between retaining screw (detail 322) and jack (detail 325), figure 7, detail F.

(3) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 318), figure 7, detail G.

(4) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 320), figure 7, detail G.

(5) On left side of longeron 74A314619, attach block (detail 315) to plate (detail 190) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(6) On right side of longeron 74A314619, attach block (detail 316) to plate (detail 191) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(7) On right side of longeron 74A314612, attach block (detail 313) to plate (detail 193) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(8) On left side of longeron 74A314612 attach block (detail 314) to plate (detail 192) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(9) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 7, detail K.

(10) Do support reaming procedures, this WP.

41. SUPPORT REAMING.

NOTE

Left and right procedures the same.

a. Feed Subassembly A as far as possible to the right side using feed from Subassembly H, figure 14, detail A.

b. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 14, detail A.

c. Pivot Subassembly A aft to gain access to install bushing (detail 270) in upper portion of plate (detail 192).

d. Install stop (detail 382) to hold bushing (detail 270) in place by attaching stop (detail 382) with screw (detail 271), figure 7, detail E.

e. Insert boring bar, SPT-RE374314235TD into bushing (detail 270) and position as far outboard as possible, figure 14, detail A.

f. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 14, detail A.

g. Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 14, detail C.

h. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in figure 14, detail A. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 14, detail C.

i. Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

j. Install motor (detail 331) through lower 4.00 inch diameter hole in plate (detail 191), locking it in place with subassembly A, figure 14, detail A.



Make sure hoses (detail 354) are connected to proper inlets.

k. Connect hoses (detail 354) to motor (detail 331).

l. Mount boring bar, SPT-RE374314235TD into Subassembly A and lock it in place with two set screws (detail 158) figure 14, detail A and D.

m. Install cutter, SPT21-RE374314235TD between plate (detail 192) and left hand drag brace fitting 74A31412, figure 14, detail D.

n. Slide cutter, SPT21-RE374314235TD onto boring bar, SPT-RE374314235TD securing it with lock screw (detail 5), figure 14, detail D.

o. On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position and turn LIFT knob to DRIVE position. Turn POWER FEED knob switch to L.H., figure 14, detail E.



Beryllium

13



Do not feed too far past relief in bearing sleeve to prevent damage to bottom of bearing sleeve.

p. Power feed cutter, SPT21-RE374314235TD into left hand drag brace fitting, 74A314612 to bore hole to 2.4951 diameter, figure 14, detail A.

q. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 14, detail E.

r. Back cutter, SPT21-RE374314235TD out of drag brace fitting, 74A314612 and feed Subassembly A as far to the right side by turning SPINDLE knob switch on Subassembly L to FWD RH. Turn SPINDLE knob switch to OFF position, figure 14, detail E.

s. Remove lock screw (detail 6) from cutter, SPT21-RE374314235TD and boring bar, SPT-RE374314235TD. Remove cutter, SPT21-RE374314235TD from between inboard side of drag brace fitting, 74A314612 and Subassembly E, figure 14, detail D.

t. Feed Subassembly A as far as possible to the right side to remove boring bar, SPT-RE374314235TD from Subassembly A by removing screws (detail 158).

u. Move boring bar, SPT-RE374314235TD as far outboard as possible while remaining in bushing (detail 270), figure 14, detail A.

v. Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

w. Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334). Remove Subassembly H through lower hole in (detail 192), figure 14, detail A and C.

x. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 14, detail A.

y. Pivot Subassembly A, aft to gain access to remove boring bar, SPT-RE374314235TD from bushing (detail 270), figure 14, detail A.

z. Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 14, detail A.

aa. Inspect diameter of bore/reamed hole in drag brace fitting, 74A314612 to 2.4951 inch with an inside caliper micrometer.



Dry Cleaning Solvent, P-D-680, Type II

25

ab. Clean diameter surface of bore/reamed hole in drag brace fitting, 74A314612 using dry cleaning solvent.

ac. Wipe and dry with clean dry cheesecloth.

ad. Remove Subassembly E.

(1) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 7, detail K.

(2) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(3) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(4) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(5) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(6) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace fitting 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 7, detail G.

(7) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace fitting, 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 7, detail G.

(8) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion fitting 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 7, detail F.

(9) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 7, detail F.

(10) On right side of drag brace fitting 74A314612, remove screw (detail 281) and cap (detail 280)

from sleeve fitting (detail 394) or (detail 396), figure 14, detail A.

(11) On left side of trunnion fitting 74A314235, remove screw (detail 287) and cap (detail 292) from plug (detail 291), figure 14, detail B.

(12) On right side of trunnion fitting 74A314235, remove screw (detail 284) and cap (detail 292) from sleeve fitting (detail 393) or (detail 395), figure 14, detail B.

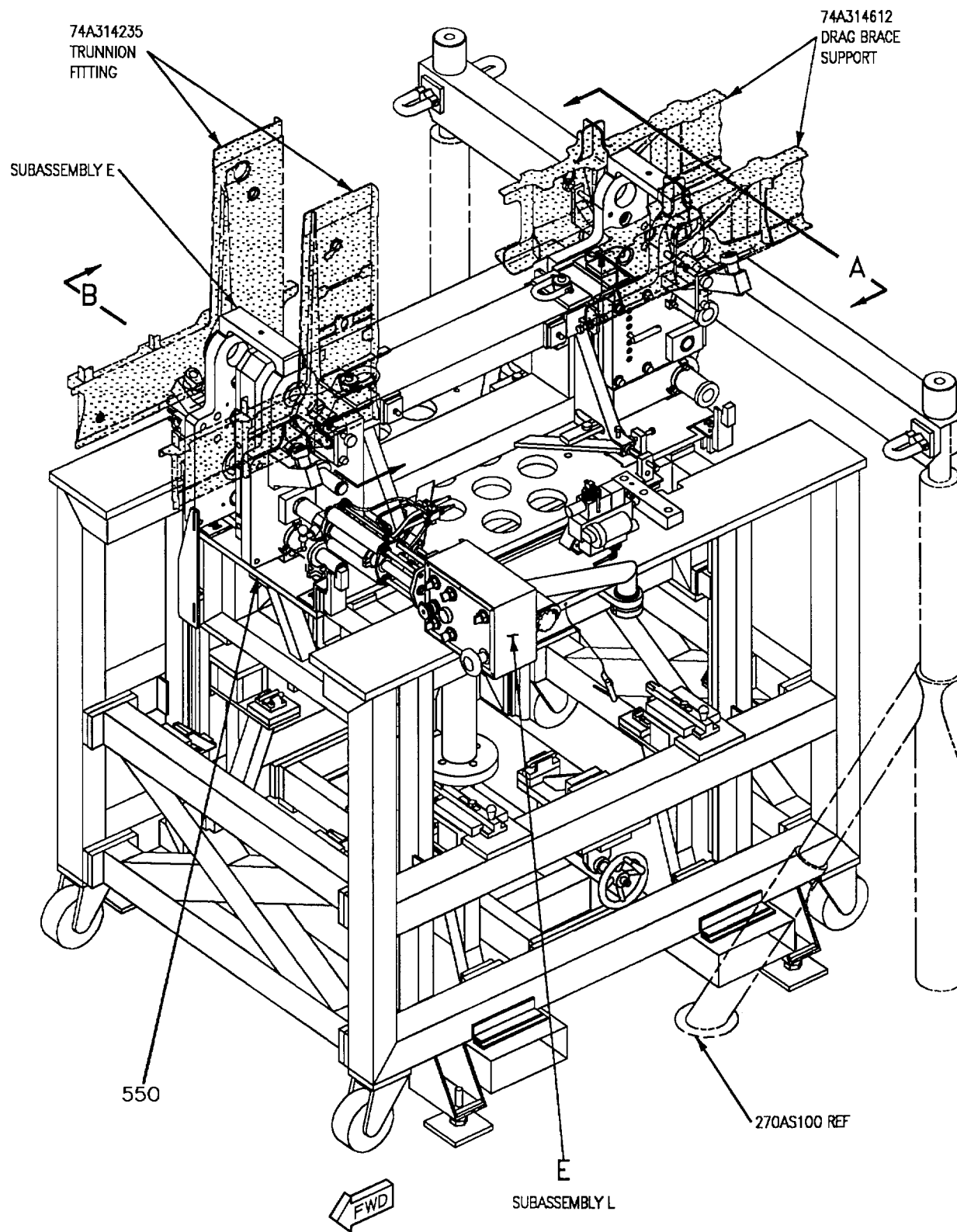
(13) On left side of trunnion fitting 74A314235, remove two nuts (detail 285) holding sleeve fitting (detail 391) in 2.751 diameter hole in plate (detail 190), figure 14, detail A.

(14) In left side drag brace area 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 14, detail A.

(15) In left side trunnion support area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 9, detail A.

(16) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to its lowest position, figure 14, detail E.

(17) Do cold working drag brace procedure, this WP.



18AC-SRM-221-(128-1)02-CAT1

Figure 14. Drag Brace Third Oversize Sleeve Installation (Sheet 1)

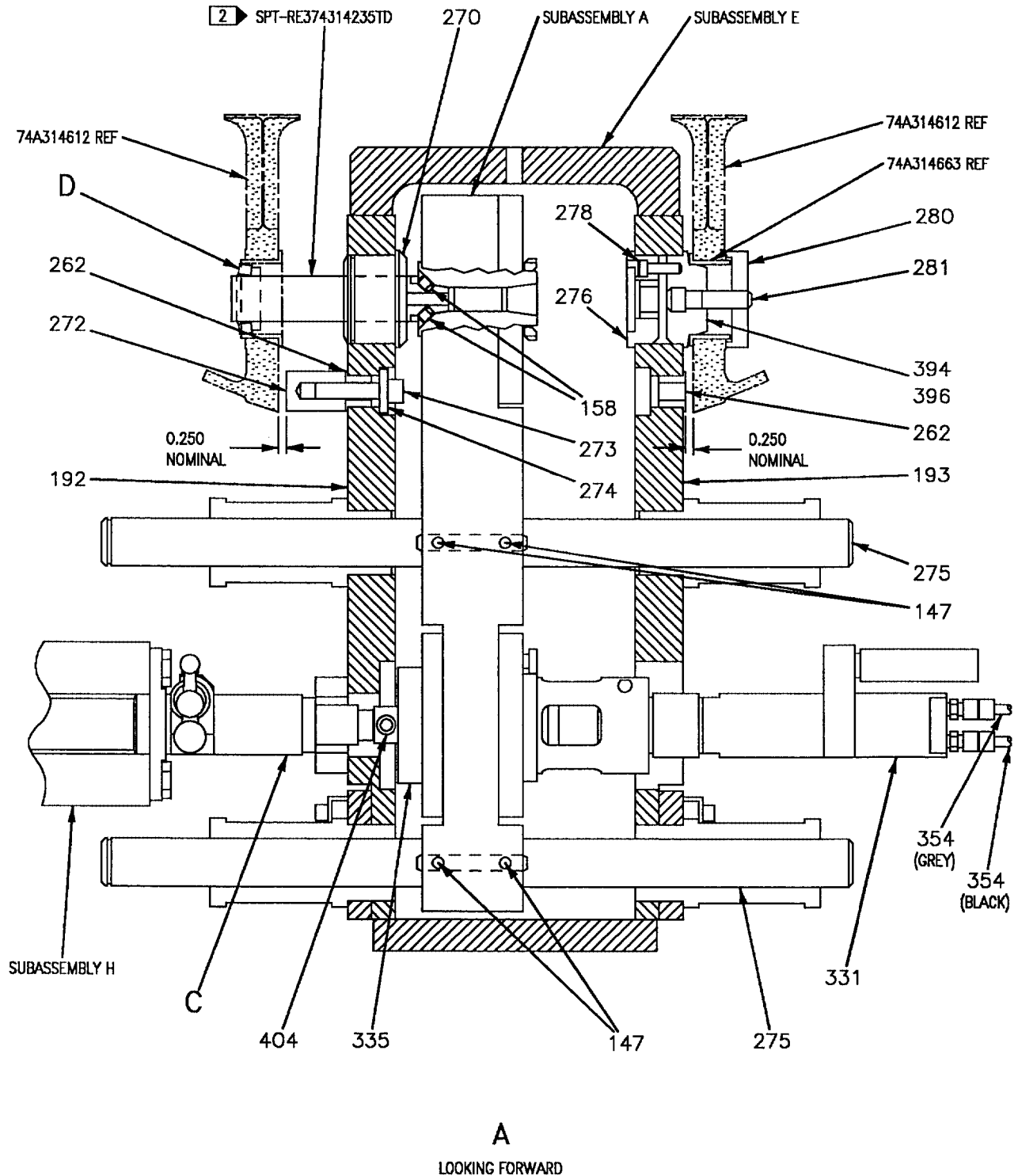
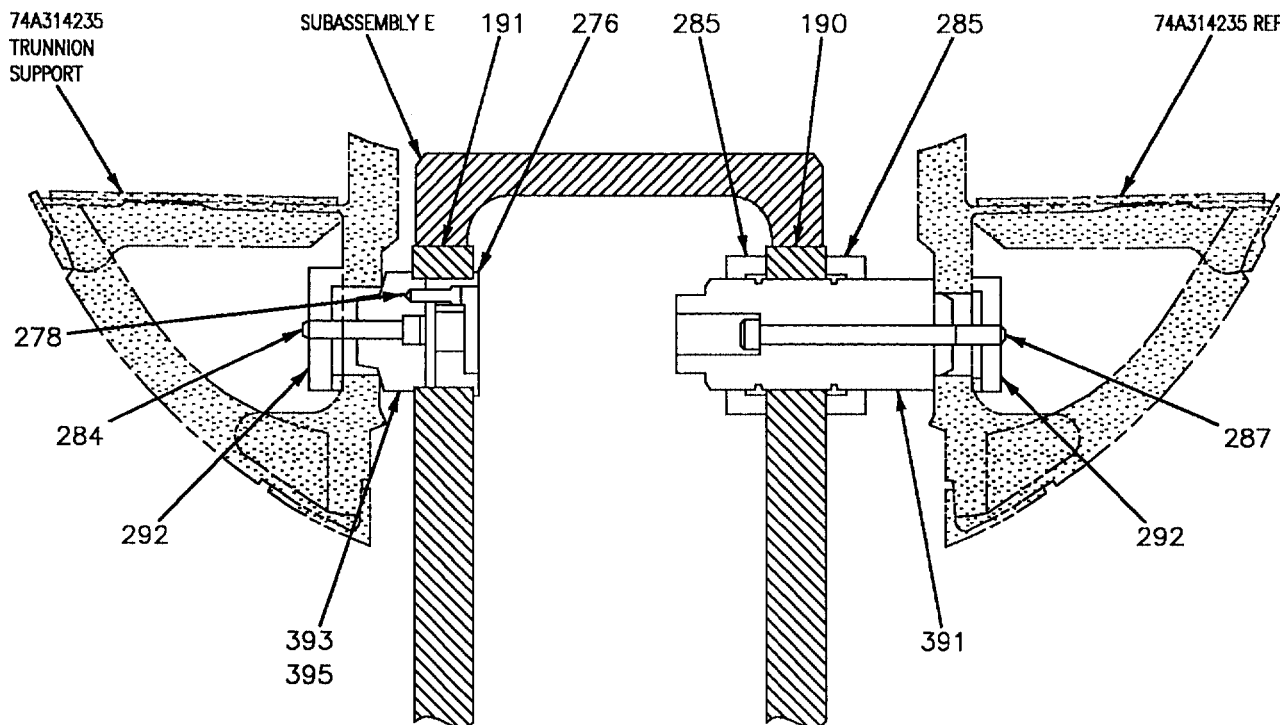
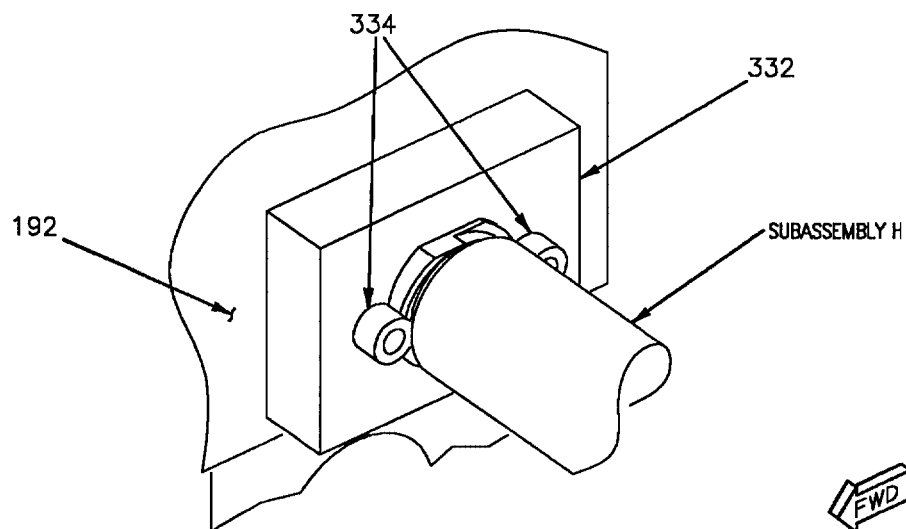


Figure 14. Drag Brace Third Oversize Sleeve Installation (Sheet 2)



B

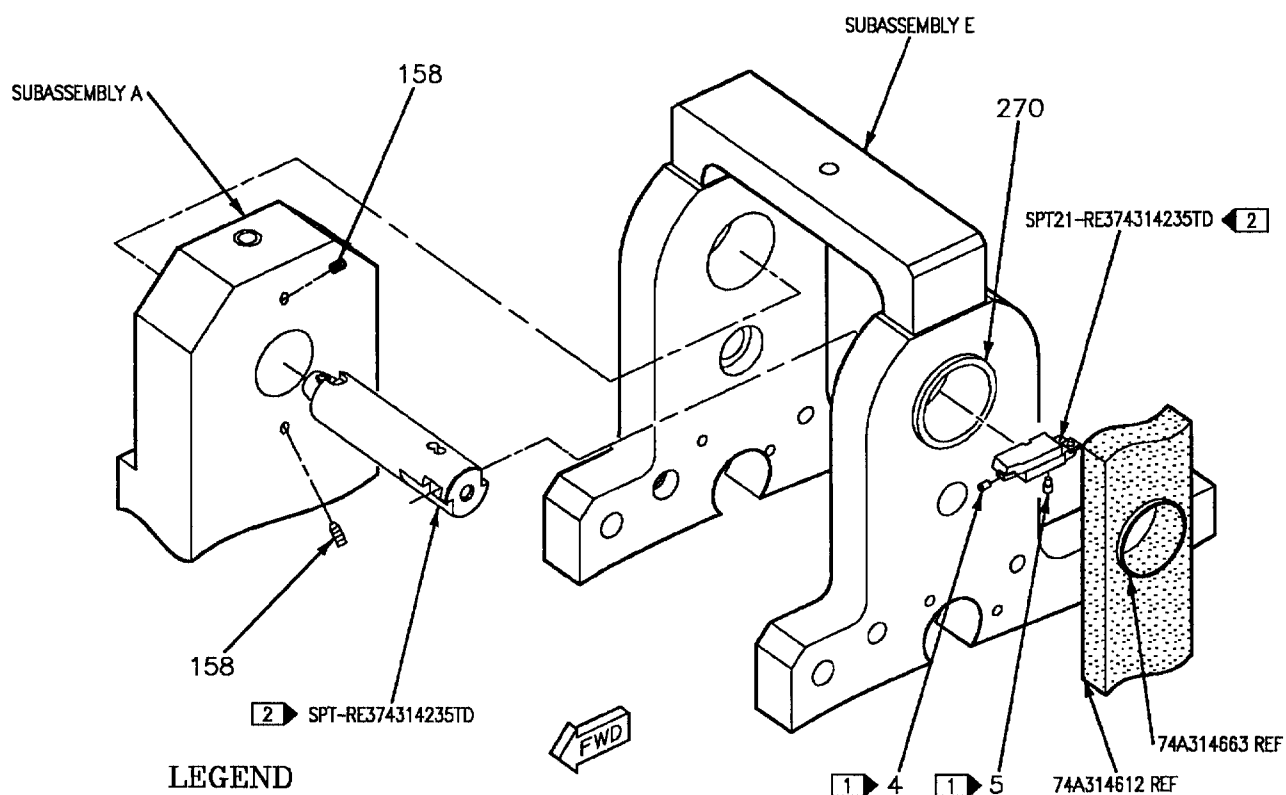
LOOKING AFT



C



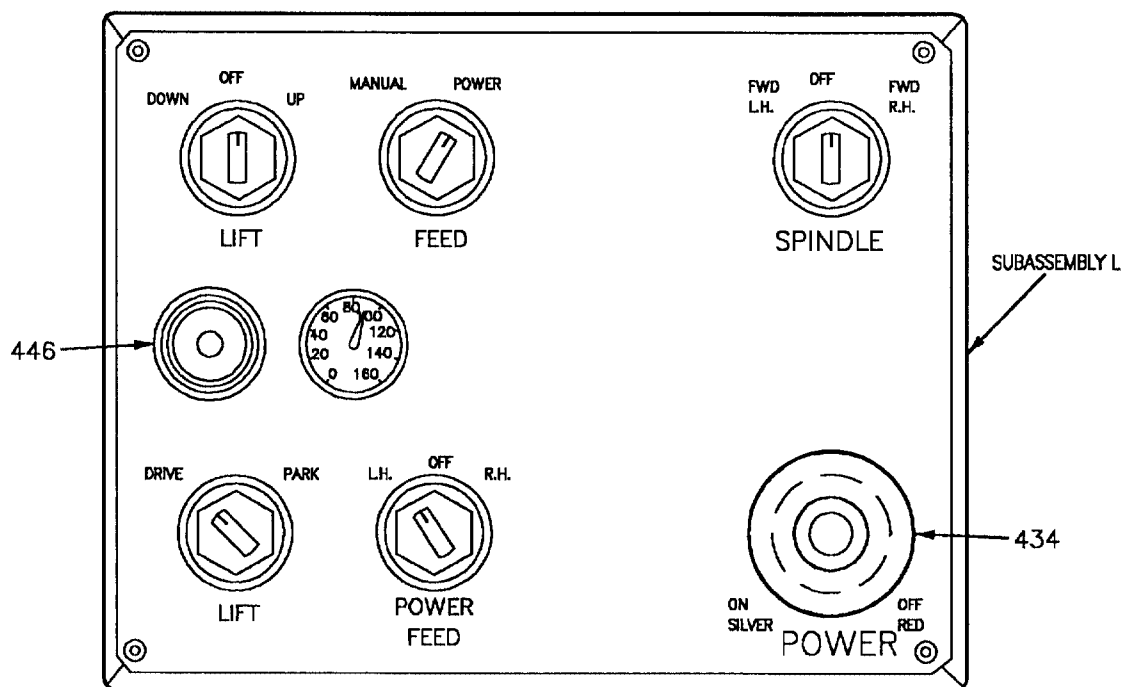
Figure 14. Drag Brace Third Oversize Sleeve Installation (Sheet 3)



LEGEND

- 1 DETAILS 4 AND 5 ARE PART OF SPT21-RE374314235TD,
BORING CARTRIDGE ASSEMBLY.
- 2 PARTS ARE PART OF RE374314235
N.L.G. TRUNNION DRAG BRACE SUPPORTS TOOL SET.

D



E

Figure 14. Drag Brace Third Oversize Sleeve Installation (Sheet 4)





Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing operation.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
SPT-RE374314235TD 	Boring Bar	Used to align and secure cutter, SPT21-RE374314235TD to Subassembly A.
SPT21-RE374314235TD 	Cutter	Used for 3rd oversize reaming in drag brace fitting 74A314612.
4 	Adjusting Screw	Used to make adjustments to cutter, SPT21-RE374314236TD.
5 	Lock Screw	Used to secure cutter, SPT21-RE374314235TD to boring bar, SPT-RE374314235TD.
147	Set Screws	Secures (detail 275) to Subassembly A in the proper position.
158	Set Screws	Used to lock in place boring bar, SPT-RE374314235TD into Subassembly A.
190	Plate	Part of Subassembly E used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.
262	Bushing	Used to check X plane location in left side drag brace area.
270	Bushing	Used to guide boring bar, SPT-RE374314235TD into Subassembly A.
272	Holding Pin Bushing	Used to check for correct X plane location in left side trunnion and drag brace area.

Figure 14. Drag Brace Third Oversize Sleeve Installation (Sheet 5)

Detail No.	Name	Function
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
275	Shafts	Used to support Subassembly A in Subassembly E attached with (detail 147).
276	Bushings	Installed into (detail 191 and 193), secured to (detail 393) and (detail 394) with (detail 278).
278	Screws	Used to secure (detail 276) to (detail 393) and (detail 394).
280	Caps	Used to take up the slack in Z plane in drag brace area, secured with (detail 281).
281	Screw	Used to secure (detail 280) to left hand drag brace, 74A314612.
284	Screw	Used to secure (detail 292) to the left hand trunnion fitting, 74A314235.
285	Nuts	Used to lock (detail 391) into (detail 190).
287	Screw	Used to secure (detail 292) and take up slack between 74A314612 and (detail 391) on left hand trunnion fitting.
292	Cap	Used to take up the slack in Z plane in left hand trunnion fitting, 74A314235.
331	Motor	Used to operate the system.
332	Block	Attached to Subassembly E and used as a guide for Subassembly H.
334	Lock Button	Used to lock Subassembly H into place on Subassembly E.
335	Clevis	Used to attach Subassembly H to Subassembly A, secured with (detail 404).
354	Hoses	Used to provide air pressure to motor (detail 331).
391	Plug	Third oversize. Used to line up left hand trunnion bearing 74A314395, with (detail 285).
393	Sleeve Fitting	Third oversize. Installed into (detail 191), secured to (detail 276) with (detail 284).

Figure 14. Drag Brace Third Oversize Sleeve Installation (Sheet 6)

Detail No.	Name	Function
394	Sleeve Fitting	Third oversize. Installed into (detail 193), secured to (detail 276) with (detail 278).
395	Sleeve Fitting	Used in place of (detail 393) if it will not install in trunnion fitting.
396	Sleeve Fitting	Used in place of (detail 394) if it will not install in drag brace fitting.
404	Shoulder Screw	Used to secure (detail 335) and Subassembly H.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
550	Lift Platform	Used to lift Subassembly E up or down.
LEGEND		
<div> <div>1</div> <div>Details 4 and 5 are part of SPT21-RE374314235TD Boring Cartridge Assembly.</div> </div> <div> <div>2</div> <div>Parts are part of RE374314235TD N.L.G. Trunnion Drag Brace Supports Tool Set.</div> </div>		

Figure 14. Drag Brace Third Oversize Sleeve Installation (Sheet 7)

42. **COLD WORKING DRAG BRACE.** Figure 15. Hydraulic Pump Assembly, Pneumatic 74D110323-1001, is used to energize ENERPAC RCH #603 cylinder during cold working per (A1-F18AC-SRM-200, WP004 18).

NOTE

Left and right procedures the same.

a. Attach plate (detail 11) to Subassembly E with cap screw (detail 239), detail A.

b. Slide Subassembly A on to plate (detail 11), detail A.

c. Place two o'rings (detail 134) onto sleeve (detail 118). Slide sleeve (detail 118) inside coupling (detail 117). Screw coupling (detail 117) into Subassembly A. Screw cap (detail 119) onto coupling (detail 117), detail B.

d. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until it is in line with hole opening in trunnion fitting, 74A314235. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, detail C.

e. Remove nut (detail 113) from shaft (detail 104).

f. Install ENERPAC RCH #603 cylinder onto shaft (detail 104) and secure it by tightening nut (detail 113). Support ENERPAC RCH #603 cylinder by placing Subassembly J under it and placing it on upper face on right hand side of fixture (detail 31).

g. Adjust the height of Subassembly J by loosening t-screw (detail 13) and either raising or lowering shaft (detail 216) so that the support fitting (detail 220) is supporting the hydraulic cylinder, detail A.

h. Loosen nut (detail 111) to the end of bolt (detail 110). Insert split sleeve, TD761G-40320 SPL from outboard side into drag brace fitting 74A314612, detail A.

i. Insert mandrel, TD761U-28 through split sleeve, TD761G-40320 SPL and screw onto bolt (detail 110). Tighten up nut (detail 111) to take up slack, detail A.

j. Energize ENERPAC RCH #603 cylinder to pull mandrel, TD761U-28 through split sleeve, TD761G-40320 SPL into drag brace fitting 74A314612, detail A.

k. Check hole diameter in drag brace fitting 74A314612, using GO/NO GO plug gage, TD216G5-403.

l. Remove Subassembly A.

(1) Loosen nut (detail 111) and unscrew mandrel, TD761U-28 from bolt (detail 110), detail A.

(2) Remove split sleeve, TD761G-40320 SPL from drag brace fitting 74A314612, detail A.

(3) Remove nut (detail 113) from shaft (detail 104) and remove ENERPAC RCH #603 cylinder. Screw nut (detail 113) onto shaft (detail 104), detail A.

(4) On Subassembly L, turn LIFT knob switch to DRIVE to activate lift cycle. Adjust pressure regulator (detail 446) to 90 psi. Turn LIFT knob switch to DOWN and lower Subassembly A until it clears drag brace fitting, 74A314612, detail C.

(5) Slide Subassembly A from plate (detail 11).

(6) Remove plate (detail 11) from Subassembly E by removing cap screw (detail 239), detail A.

(7) Remove Subassembly J from fixture (detail 31), detail A.

(8) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 500) to it's lowest position, detail C.

(9) Do support final reaming after cold working procedure, this WP.

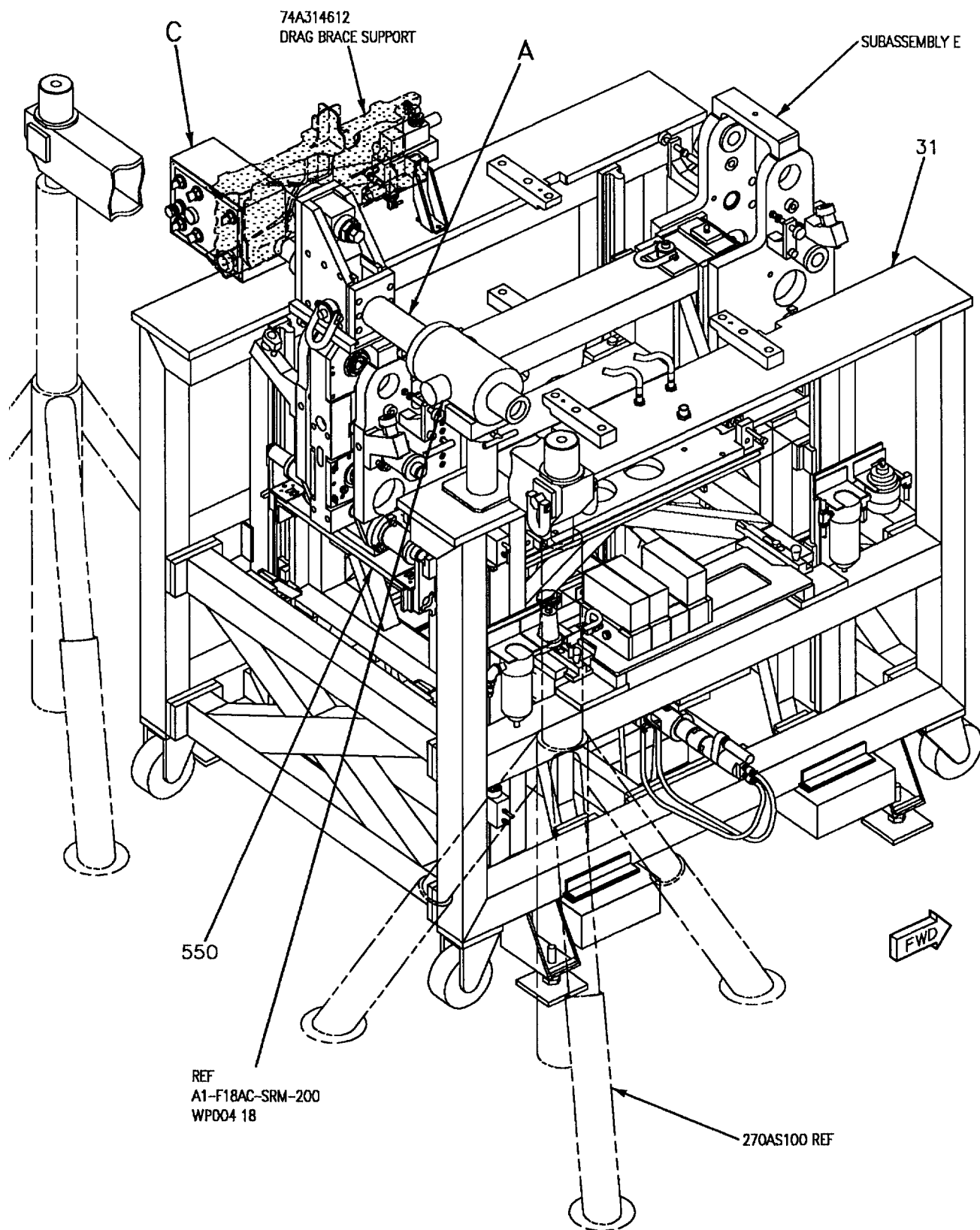


Figure 15. Cold Working Drag Brace (Sheet 1)

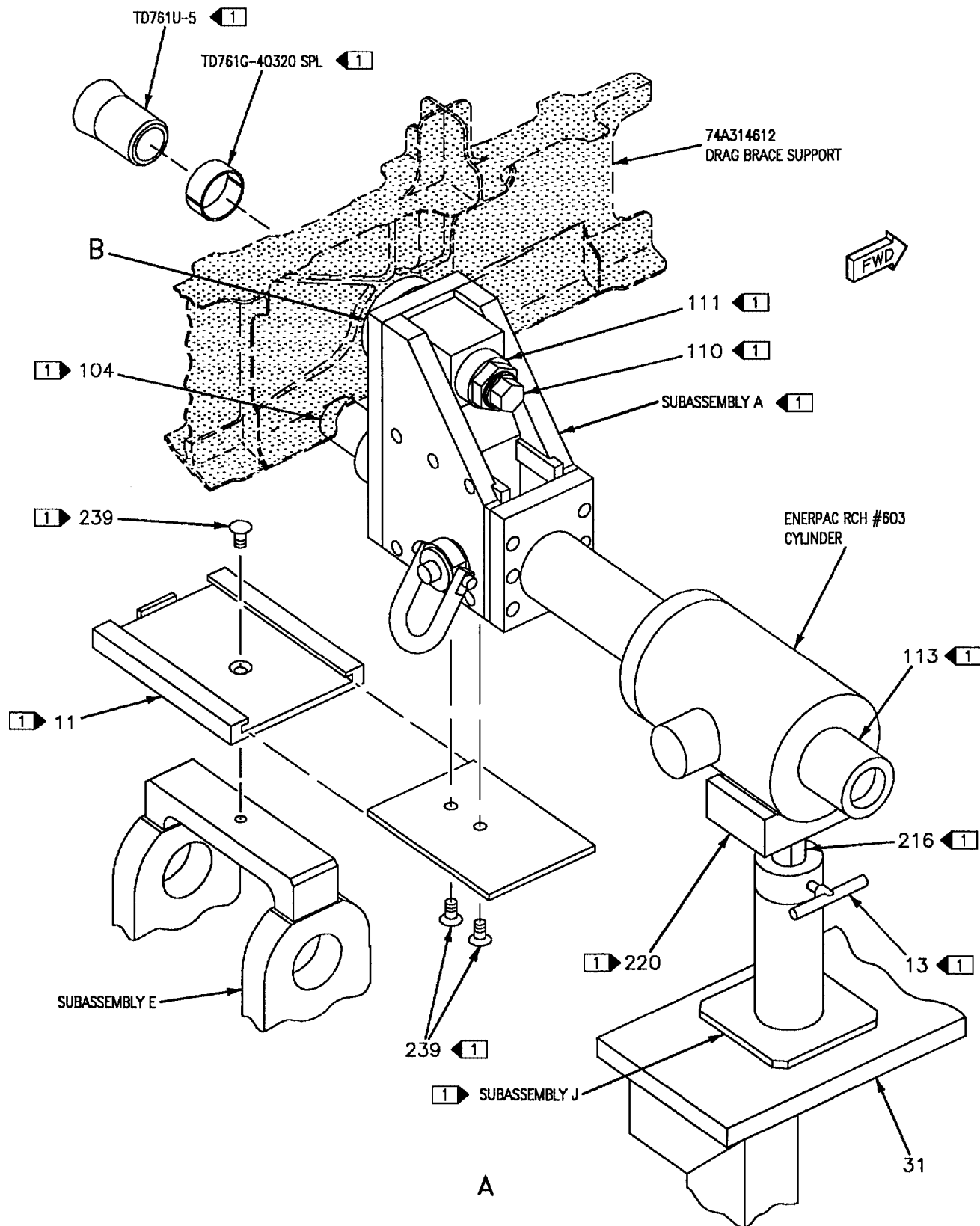


Figure 15. Cold Working Drag Brace (Sheet 2)

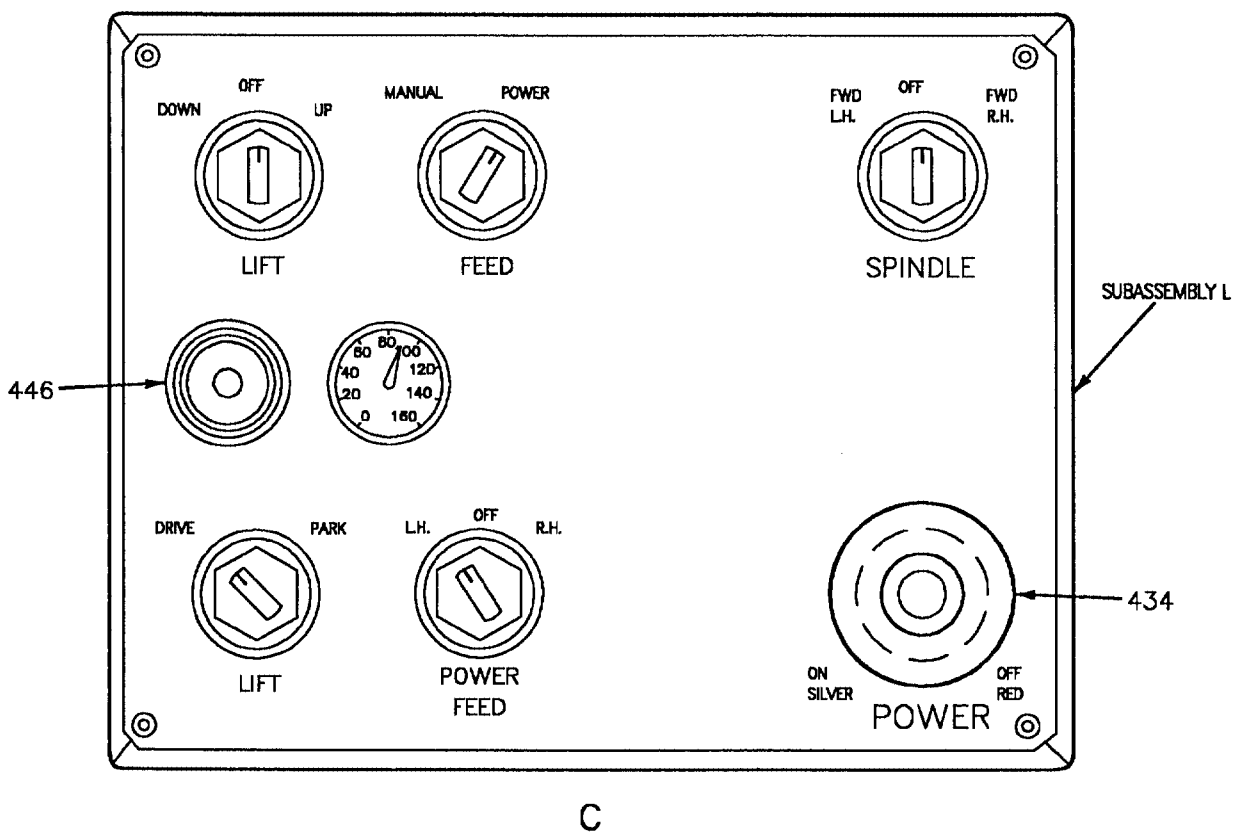
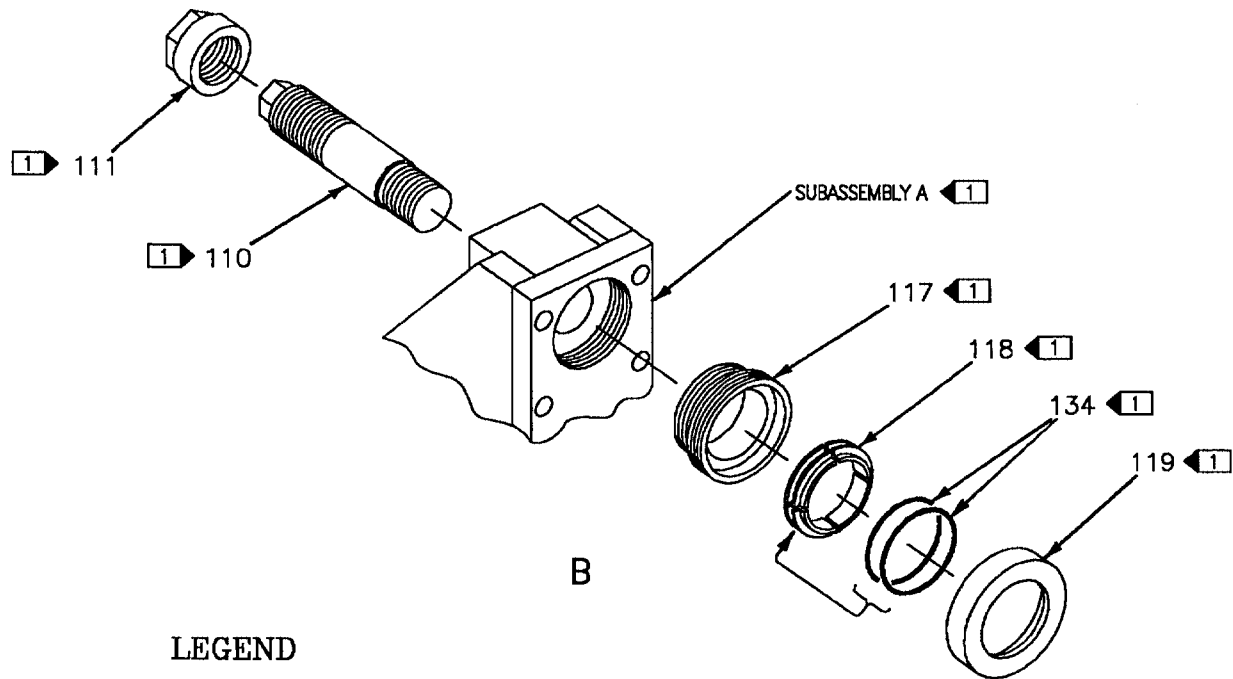


Figure 15. Cold Working Drag Brace (Sheet 3)

Detail No.	Name	Function
Subassembly A 1	Support Assembly	Used to cold work oversize drag brace bearing fitting, 74A314612.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operation.
Subassembly J 1	Support Stand	Used to support and align ENERPAC RCH #603 cylinder.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
ENERPAC RCH #603	Cylinder (Depot Furnished)	Used to operate (detail 104) by pushing it inboard.
TD216G5-403 SPL 1	GO/NO GO Plug Gage	Used to check hole diameter in drag brace fitting, 74A314612.
TD761G-40320 SPL 1	Split Sleeve	Used in hole diameter in drag brace fitting, 74A314612.
TD761U-5 1	Mandrel	Used to enlarge hole in drag brace fitting, 74A314612.
11 1	Plate	Used to secure Subassembly A to Subassembly E.
13 1	T-Screw	Used to hold (detail 216) in position.
31	Fixture	Used to support Subassembly J and Subassembly E.
104 1	Shaft	Used to align ENERPAC RCH #603 cylinder and drive Subassembly A.
110 1	Bolt	Used to secure TD761U-28 mandrel to Subassembly A.
111 1	Nut	Used to take up slack between (detail 110) and (detail 171).
113 1	Nut	Used to secure ENERPAC RCH #603 cylinder to Subassembly A.
117 1	Coupling	Used to align (detail 110) and house (detail 118) and (detail 134).
118 1	Sleeve	Used to house (detail 134) and align (detail 110).
119 1	Cap	Used to secure (detail 117) to Subassembly A.
134 1	O'Rings	Used with (detail 118) to align TD761U-28 mandrel.

Figure 15. Cold Working Drag Brace (Sheet 4)





Detail No.	Name	Function
216 	Shaft	Used with (detail 220) to support ENERPAC RCH #603 cylinder.
220 	Support Fitting	Supports ENERPAC RCH #603 cylinder with (detail 216).
239 	Cap Screw	Used to secure (detail 11) to Subassembly E.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
550	Lift Platform	Used to lift Subassembly E up or down.
LEGEND		
 Part flagged are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set.		

Figure 15. Cold Working Drag Brace (Sheet 5)

43. SUPPORT FINAL REAMING AFTER COLD WORKING. Figure 16.

NOTE

Left and right procedures the same.

a. Reinstall Subassembly E onto aircraft.

(1) On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn Lift knob switch to UP and LIFT Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 16, detail C.

(2) Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support, 74A314235.

(3) Install sleeve fitting (detail 393) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 393) install sleeve fitting (detail 395), figure 14, detail B.

(4) Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand drag brace fitting, 74A314612.

(5) Install sleeve fitting (detail 394) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 394), install sleeve fitting (detail 396), figure 16, detail A.

(6) On left side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(7) On right side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(8) On left side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(9) Install plug (detail 391) into 2.751 diameter hole in plate (detail 190) at left hand trunnion support,

74A314325. Secure plug (detail 391) by locking in place with two nuts (detail 285), figure 14, detail B.

(10) Secure plate (detail 193) to right hand drag brace, 74A314612 fitting by installing cap (detail 280) and attaching it with screw (detail 281), figure 16, detail A.

(11) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion fitting 74A314325 between retaining screw (detail 322) and jack (detail 323), figure 7, detail F.

(12) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion fitting 74A314325 between retaining screw (detail 322) and jack (detail 325), figure 7, detail F.

(13) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 318), figure 7, detail G.

(14) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 320), figure 7, detail G.

(15) On left side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(16) On right side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(17) On left side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(18) On right side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(19) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 7, detail K.

b. Ream Drag Brace Fitting, 74A314612.

(1) Feed Subassembly A as far as possible to the right side using feed from Subassembly H, figure 16, detail A.

(2) Loosen upper two set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 16, detail A.

(3) Pivot Subassembly A aft to gain access to install bushing (detail 270) in upper portion of plate (detail 192).

(4) Install stop (detail 382) to hold bushing (detail 270) in place by attaching stop (detail 382) with screw (detail 271), figure 7, detail E.

(5) Insert boring bar, SPT-RE374314235TD into bushing (detail 270) and position as far outboard as possible, figure 16, detail A.

(6) Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 16, detail A.

(7) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 7, detail N.

(8) Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in figure 7, detail A. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 7, detail A.

(9) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

(10) On Subassembly L, turn LIFT knob switch to PARK position, figure 16, detail C.

(11) Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

(12) Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 191) locking it in place with Subassembly A, figure 7, detail A.



Make sure hoses (detail 354) are connected to proper inlets.

(13) Connect hoses (detail 354) to motor (detail 331).

(14) Mount boring bar, SPT-RE374314235TD into Subassembly A and lock it in place with two set screws (detail 158), figure 16, detail B.

(15) Install reamer, SPT22-RE374314235TD between plate (detail 192) and left hand drag brace fitting 74A314612, figure 16, detail A.

(16) Slide reamer, SPT22-RE374314235TD onto boring bar, SPT-RE374314235TD securing it with lock screw (detail 4), figure 16, detail B.

(17) On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position. Turn POWER FEED knob switch to L.H., figure 16, detail C.



Beryllium

13



Do not feed too far past relief in bearing sleeve to prevent damage to bottom of bearing sleeve.

(18) Power feed reamer, SPT22-RE374314235TD into hole in left hand drag brace fitting 74A314612 and ream to 2.5264 diameter, figure 16, detail A and B.

(19) On Subassembly L, turn SPINDLE knob switch to OFF position, figure 16, detail C.

(20) Back reamer, SPT22-RE374314235TD out of hole in left hand drag brace fitting 74A314612 and feed Subassembly A as far to the right side by turning SPINDLE knob switch on Subassembly L to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 16, detail C.

(21) Remove lock screw (detail 4) from reamer, SPT22-RE374314235TD and boring bar, SPT-

RE374314235TD. Remove reamer, SPT22-RE374314235TD from between inboard side of drag brace fitting, 74A314612 and Subassembly, figure 16, detail B.

(22) Feed Subassembly A as far as possible to the right side to remove boring bar, SPT-RE374314235TD from Subassembly A by removing screws (detail 158).

(23) Move boring bar, SPT-RE374314235TD as far outboard as possible while remaining in bushing (detail 270), figure 16, detail A.

(24) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 16, detail A.

(25) Pivot Subassembly A aft to gain access to remove boring bar SPT-RE374314235TD from bushing (detail 270), figure 16, detail A.

(26) Rotate Subassembly A back to it's upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 16, detail A.

(27) Inspect diameter of bore/reamed hole in drag brace fitting, 74A314612 to 2.5264 inch with an inside caliper micrometer.



Dry Cleaning Solvent, P-D-680, Type II

25

(28) Clean diameter surface of bore/reamed hole in drag brace fitting 74A314612, using dry cleaning solvent.

(29) Wipe and dry with clean dry cheesecloth.

c. Remove Subassembly E.

(1) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 7, detail K.

(2) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(3) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(4) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(5) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(6) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace fitting 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 7, detail G.

(7) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace fitting, 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 7, detail G.

(8) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion fitting 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 7, detail F.

(9) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 7, detail F.

(10) On right hand side of drag brace fitting 74A314612, remove screw (detail 281) and cap (detail 280) from plug (detail 394 or 396), figure 16, detail A.

(11) On right hand side of trunnion fitting 74A314235, remove screw (detail 284) and cap (detail 292) from sleeve fitting (detail 393 or 395), figure 14, detail B.

(12) In left side trunnion support area 74314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 9, detail A.

(13) Disconnect hoses (detail 354) from motor (detail 331).

(14) Slide Subassembly A as far as possible to the right side of Subassembly E, still clearing plate (detail 193).

(15) On Subassembly L, turn LIFT knob switch to PARK position, figure 16, detail C.

(16) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 193).

(17) Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame, figure 14, detail A.

(18) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

(19) Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334). Remove Subassembly H through lower hole in plate (detail 192), figure 8, detail D. Attach Subassembly H to left side of tool frame with knob (detail 655).

(20) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 16, detail C.

(21) Check that shaft (detail 602) is setting securely onto guide (detail 601) on both sides of lift platform (detail 550), forward end. If not, loosen or tighten top cap screw (detail 667), on welded assembly (detail 45) to raise or lower dovetail slide (detail 606) until shaft (detail 602) is securely setting on guide (detail 601).

(22) On the aft end of lift platform (detail 550) check to make sure that shaft (detail 275) is setting securely onto guide (detail 604) on both sides of lift platform (detail 550). If not, loosen or tighten top outboard cap screw (detail 667), on plate (detail 603) to raise or lower dovetail slide (detail 607) until shaft (detail 275) is securely setting on guide (detail 607).

44. OVERSIZE SLEEVE INSTALLATION.

NOTE

Left and right procedures the same.

a. Machine outside diameter of bearing sleeve 74A314663, for 0.0013 to 0.0032 interference fit in hole in drag brace fitting, 74A314612.

b. Attach support (detail 12) to Subassembly E with cap screw (detail 668) and washer (detail 669), figure 6, detail A.



Sealing Compound, High Temperature, MIL-S-83430

c. Install sleeve fitting (detail 130) into bearing sleeve, 74A314663-2009. Apply fillet seal around peripheral of bearing sleeve. For application of fillet seal (A1-F18AC-SRM-200, WP011 00).

d. Insert threaded stud (detail 142) with washer (detail 144) and nut (detail 143) through ENERPAC RCH #202 cylinder. Place it on support (detail 12), figure 6, detail A.

e. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until threaded stud (detail 142) lines up with hole in sleeve fitting (detail 130). Turn LIFT knob switch to OFF position, figure 16, detail C.

f. Insert sleeve fitting (detail 222) into bearing sleeve through hole in drag brace fitting 74A314612. Insert threaded stud (detail 142) with washer (detail 142), nut (detail 143) and ENERPAC RCH #202 cylinder into sleeve fittings (detail 130 and 222), figure 6, detail A.

g. Screw cap (detail 131) onto threaded stud (detail 142) from outboard side taking up the slack.

h. Energize cylinder to install bearing sleeve 74A314663-2003 into drag brace fitting, 74A314612.

i. Unscrew cap (detail 131) from threaded stud (detail 142). Remove sleeve fitting (detail 222).

j. Slide threaded stud (detail 142) with washer (detail 144) and nut (detail 143) from sleeve fitting (detail 130).

k. On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 16, detail C.

l. Remove threaded stud (detail 142), washer (detail 144) and nut (detail 143) from ENERPAC RCH #202 cylinder, figure 6, detail A.

m. Remove threaded stud (detail 142), washer (detail 144) and nut (detail 143) from ENERPAC RCH #202 cylinder.

n. Remove ENERPAC RCH #202 cylinder from support (detail 12), figure 6, detail A.

o. Remove cap screw (detail 668) and washer (detail 669), holding support (detail 12) from Subas-

sembly E. Remove support (detail 12) from Subassembly E.

p. Reinstall Subassembly E.

(1) On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn Lift knob switch to UP and LIFT Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 16, detail C.

(2) Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support, 74A314325. Install sleeve fitting (detail 393) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 393) install sleeve fitting (detail 395), figure 14, detail B.

(3) Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand drag brace fitting, 74A314612. Install sleeve fitting (detail 394) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 394), install sleeve fitting (detail 396), figure 16, detail A.

(4) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(5) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 7, detail J.

(6) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 7, detail H.

(7) Install plug (detail 391) into 2.751 diameter hole in plate (detail 190) at left hand trunnion support 74A314325. Secure plug (detail 391) by locking in place with two nuts (detail 285), figure 14, detail B.

(8) Secure plate (detail 193) to right hand drag brace, 74A314612 fitting by installing cap (detail 280) and attaching it with screw (detail 281), figure 16, detail A.

(9) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion fitting 74A314325 between retaining screw (detail 322) and jack (detail 323), figure 7, detail F.

(10) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion fitting 74A314325 between retaining screw (detail 322) and jack (detail 325), figure 7, detail F.

(11) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace fitting 74A314612 between retaining screw (detail 317) and jack (detail 318), figure 7, detail G.

(12) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace fitting, 74A314612 between retaining screw (detail 317) and jack (detail 320), figure 7, detail G.

(13) On left side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(14) On right side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 7, detail H.

(15) On left side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(16) On right side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 7, detail J.

(17) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 7, detail K.

(18) Do sleeve reaming procedure, this WP.

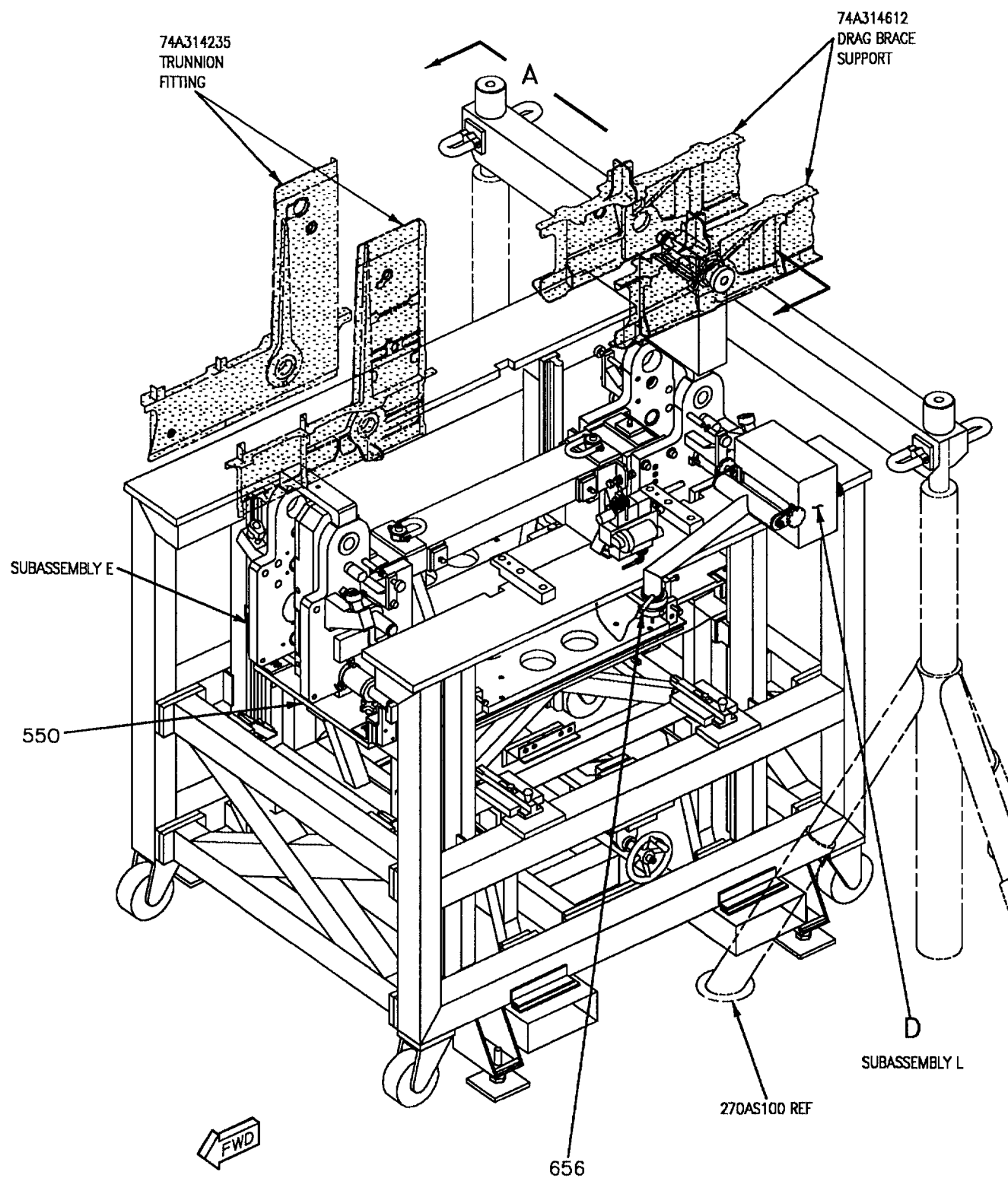
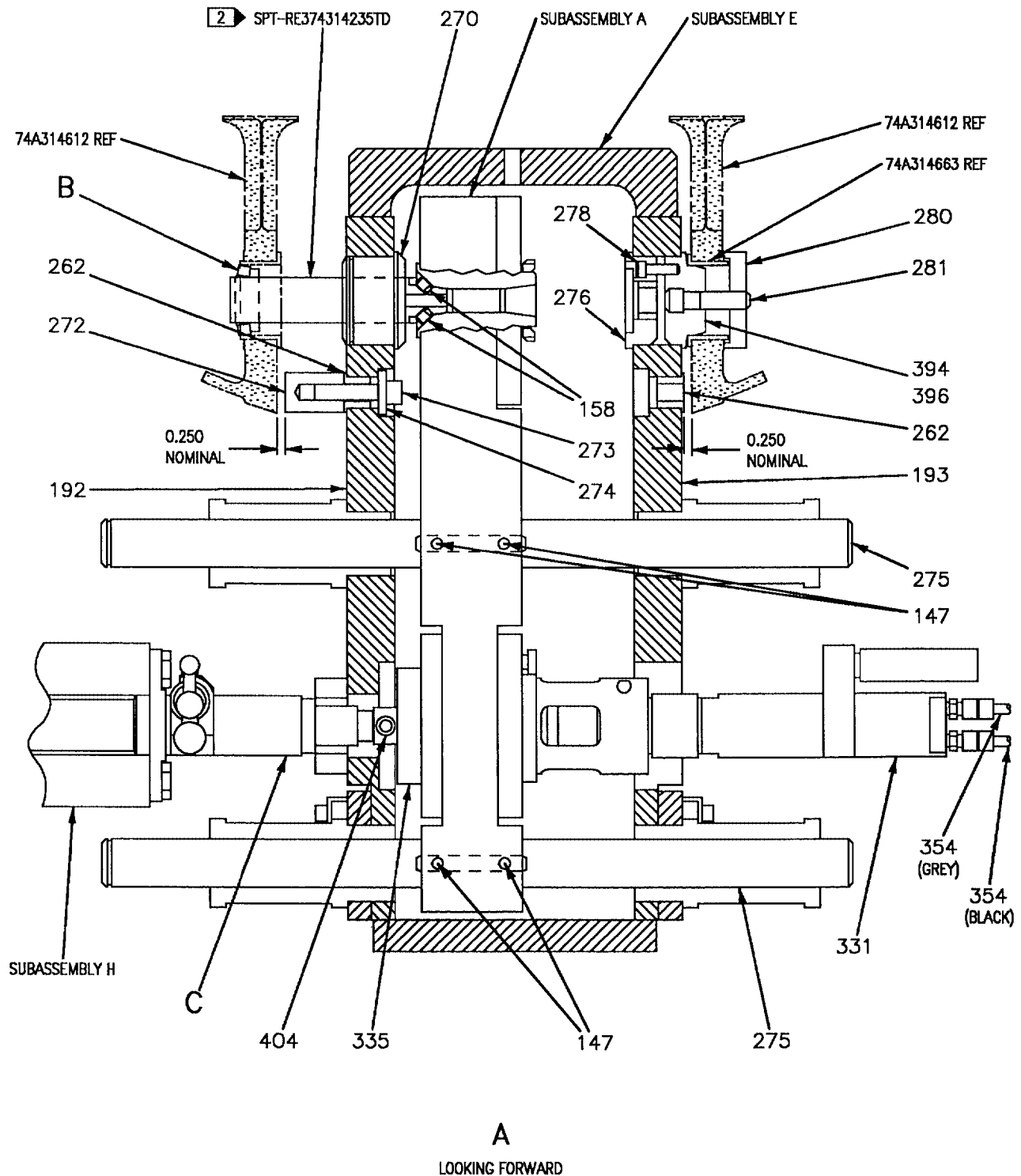
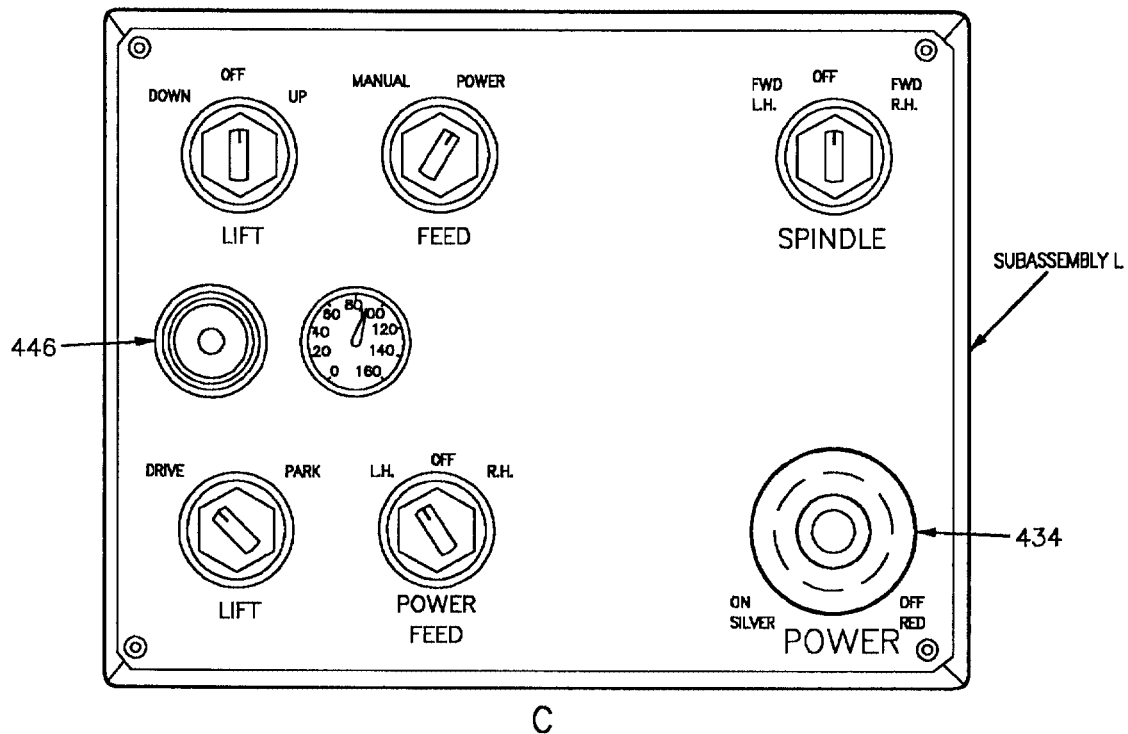
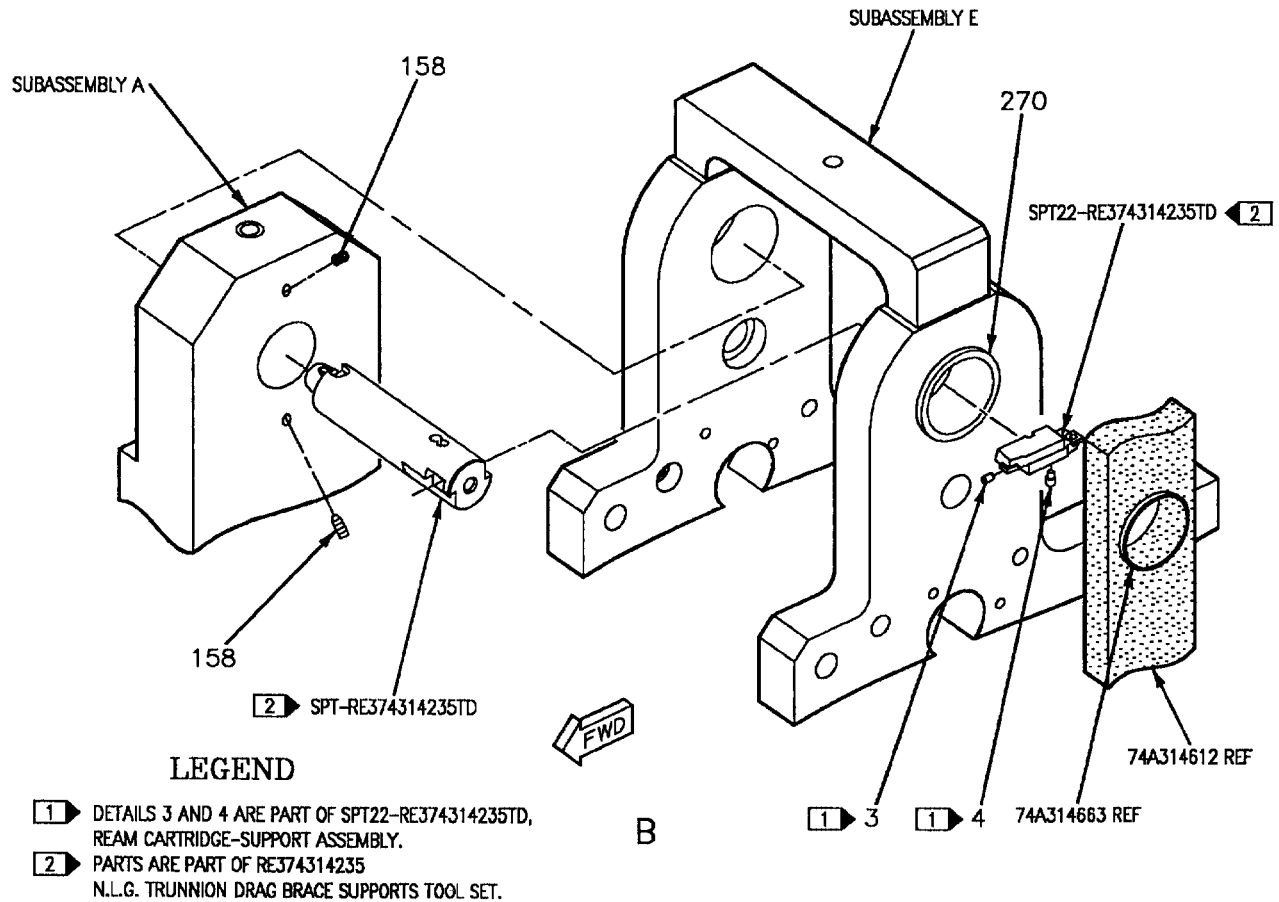


Figure 16. Support Final Reaming After Cold Working (Sheet 1)



18AC-SRM-221-(130-2)03-CATI

Figure 16. Support Final Reaming After Cold Working (Sheet 2)



18AC-SRM-221-(130-3)02-CATI

Figure 16. Support Final Reaming After Cold Working (Sheet 3)







Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing operation 74A314612, and drag brace bearing sleeves.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
SPT-RE374314235TD 	Boring Bar	Used to align and secure reamer, SPT22-RE374314235TD to Subassembly A.
SPT22-RE374314235TD 	Reamer	Used for 2nd pass reaming in drag brace fitting 74A314612.
ENERPAC RCH #202	Cylinder (Depot Furnished)	Used to operate (detail 128) by pushing it outboard.
3 	Adjusting Screw	Used to make adjustments to reamer SPT22-RE374314235TD.
4 	Lock screw	Used to secure reamer, SPT22-RE374314235TD to boring bar, SPT-RE374314235TD.
12 	Support	Used to support and align ENERPAC RCH #202 Cylinder.
19	Jacking Beam	Used to support the aircraft and secure Subassembly E using (details 198, 199 and 200).
24	Clamp	Used to hold 74A314612, right hand trunnion and (detail 193) in the correct position, using (detail 319).
25	Clamp	Used to hold 74A31462, left hand trunnion and (detail 192) in the correct position using (detail 321).
26	Clamp	Used to hold 74A314235, left hand drag brace and (detail 190) in the correct position using (detail 324).
27	Clamp	Used to hold 74A314235, right hand drag brace and (detail 191) in the correct position using (detail 326).
43	Bracket	Holds motor (detail 331) on the lower right hand side of the tool frame, when not using on Subassembly E.
45	Welded Assembly	Used to align Subassembly E when not attached to aircraft in the trunnion area.
130 	Sleeve Fitting	Used to align (detail 142) through 74A314395 bearing sleeve.

Figure 16. Support Final Reaming After Cold Working (Sheet 4)




Detail No.	Name	Function
131 	Cap	Used to secure (detail 142) into drag brace fitting, 74A314612.
142 	Threaded Stud	Used to secure sleeve fitting (detail 130) to (detail 131).
143	Nut, Hex	Used to secure (detail 142) and (detail 144) onto ENERPAC RCH #202 cylinder
144	Washer	Used with (detail 143) to take up slack on (detail 142).
147	Set Screws	Used to secure shaft (detail 275) to Subassembly A.
158	Set Screws	Used to lock in place boring bar, SPT-RE374314235TD into Subassembly A.
190	Plate	Part of Subassembly E, used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace fitting, 74A314612.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.
198	Screws	Attach (detail 19) to Subassembly E with (detail 199 and 200).
199	Swivel Washers	Used on forward and aft side of (detail 19) with (detail 198 and 200) to attach (detail 19) to Subassembly E.
200	Nuts	Used on forward side of (detail 19) with (detail 198) to attach (detail 19) to Subassembly E.
222 	Sleeve Fitting	Used to secure (detail 131) into drag brace fitting 74A314663.
262	Bushing	Used to check for correct X plane location in left and right side drag brace area.
270	Bushing	Used to align boring bar, SPT-RE374314235TD into Subassembly A.
271	Screw	Used to secure (detail 382) to (detail 190).
272	Holding Pin Bushing	Used to check for correct X plane location in left side trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
275	Shaft	Used to support Subassembly A in Subassembly E, attached with (detail 147).

Figure 16. Support Final Reaming After Cold Working (Sheet 5)

Detail No.	Name	Function
276	Bushings	Installed into (detail 191 and 193), secured to (details 394 or 396) with (detail 278).
278	Screws	Used to secure (detail 276) to (detail 394 or 396).
280	Caps	Used to take up the slack in Z plane in drag brace area. Secured with (details 281).
281	Screw	Used to secure (detail 280) to left hand drag brace, 74A314612.
285	Nuts	Used to lock (detail 391) into (detail 192).
309	Clamp Assemblies	Used to secure 74A314612 and 74A314619 longeron.
310	Nuts	Used to tighten up (detail 309) in trunnion and drag brace area.
311	Jacks	Used to take up slack between (detail 309) and 74A314612 and 74A314619 longeron.
317	Retaining Screws	Used to secure left and right hand longeron, 74A314612 to Subassembly E.
318	Jack	Used to help secure right hand longeron, 74A314612 to Subassembly E.
319	Cap Screw	Used to attach (detail 24) to (detail 193).
320	Jack	Used to help secure left hand longeron, 74A314612 to Subassembly E.
321	Cap Screw	Used to attach (detail 25) to (detail 192).
322	Retaining Screws	Used to secure left and right hand trunnion support, 74A314235 to Subassembly E.
323	Jack	Used to help secure left hand trunnion support, 74A314235 to Subassembly E.
324	Cap Screw	Used to attach (detail 26) to (detail 190).
325	Jack	Used to help secure right hand trunnion support, 74A314235 to Subassembly E.
326	Cap Screw	Used to attach (detail 27) to (detail 191).
331	Motor	Used to operate the system.
332	Block	Attached to Subassembly E and used as a guide for Subassembly H.
334	Lock Button	Used to lock Subassembly H into place on Subassembly E.
335	Clevis	Attached to Subassembly H to Subassembly A, secured with (detail 404).

Figure 16. Support Final Reaming After Cold Working (Sheet 6)

Detail No.	Name	Function
354	Hoses	Used to provide air pressure to motor (detail 331).
382	Stop, Shoulder	Used to hold (detail 270) in place with (detail 271).
391	Plug	Used to line up left hand drag brace bearing, 74A314663 with (detail 285).
393	Sleeve Fitting	Third oversize. Installed into (detail 191), secured to (detail 276) with (detail 284).
394	Sleeve Fitting	Third oversize. Installed into (detail 193), secured to (detail 276) with (detail 278).
395	Sleeve Fitting	Used in place of (detail 393) if it will not install in trunnion fitting.
396	Sleeve Fitting	Used in place of (detail 394) if it will not install in drag brace fitting.
404	Shoulder Screw	Used to secure (detail 335) and Subassembly H.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
478	Fittings	Used to connect hoses (detail 354) to motor (detail 331) when installed on Subassembly A.
550	Lift Platform	Used to lift Subassembly E up or down.
601	Guide	Used to align Subassembly E when not attached to aircraft and supports either (detail 260 or 275) in trunnion area.
602	Shaft	Used to align Subassembly E, when not attached to aircraft.
603	Plate	Attached to (detail 560) with two cap screws, also as a supporting plate for (detail 607).
604	Guide	Used to align Subassembly E, when not attached to aircraft and supports either (detail 260 or 275) in drag brace area.
606	Dovetail Slide	Used to make adjustments on leveling Subassembly E in trunnion area when not attached to aircraft.
607	Dovetail Slide	Used to make adjustments on leveling Subassembly E in drag
656	L-pin	Used to secure Subassembly L arm when not in use.
LEGEND		
<div> <div>1</div> Detail 3 and 4 are part of SPT22-RE374314235TD Ream Cartridge-Support Assembly. </div> <div> <div>2</div> Flagged parts are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set. </div>		

Figure 16. Support Final Reaming After Cold Working (Sheet 7)

45. **SLEEVE REAMING.** Figure 17.**NOTE**

Left and right procedures the same.

a. Feed Subassembly A as far as possible to the right side using feed from Subassembly H, figure 17, detail A.

b. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 17, detail A.

c. Pivot Subassembly A aft to gain access to install boring bar, SPT-RE374314235TD through bushing (detail 270) in upper portion of plate (detail 192) and against bottom of bearing sleeve 74A314395, figure 17, detail A.

d. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 17, detail D.

e. Mount boring bar, SPT-RE374314235TD into Subassembly A and lock it in place with two set screws (detail 158), figure 17, detail A.

f. Install reamer, SPT24-RE374314235TD between plate (detail 192) and left hand drag brace fitting 74A314612, figure 17, detail B.

g. Slide reamer, SPT24-RE374314235TD onto boring bar, SPT-RE374314235TD securing it with lock screw (detail 4), figure 17, detail B.

h. On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position. Turn POWER FEED knob switch to L.H., figure 16, detail C.

Do not feed too far pas relief in bearing sleeve to prevent damage to bottom of bearing sleeve.

i. Power feed reamer, SPT24-RE374314235TD into bearing sleeve 74A314395 to ream inside diameter to $2.2500 +0.0018 -0.0000$ diameter, figure 17, detail A.

j. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 16, detail C.

k. Back reamer, SPT24-RE374314235TD out of bearing sleeve 74A314395 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 16, detail C.

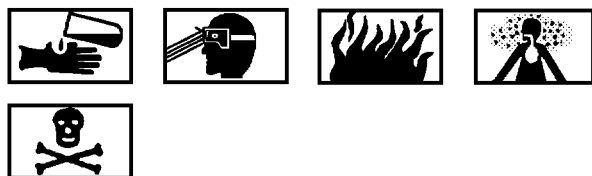
l. Remove reamer, SPT24-RE374314235TD from between inboard side of drag brace fitting 74A314612 and Subassembly E, figure 17, detail B.

m. Remove boring bar, SPT-RE374314235TD from Subassembly A by removing two set screws (detail 158) and slide it as far outboard as possible while remaining in bushing (detail 270), figure 17, detail B.

n. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 17, detail A.

o. Pivot Subassembly A aft to gain access to remove boring bar, SPT-RE374314235TD far from bushing (detail 270), figure 17, detail A.

p. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper hole in Subassembly E and tighten upper two set screws (detail 147), figure 17, detail A.



Beryllium

13

q. Do spotfacing procedure, this WP.

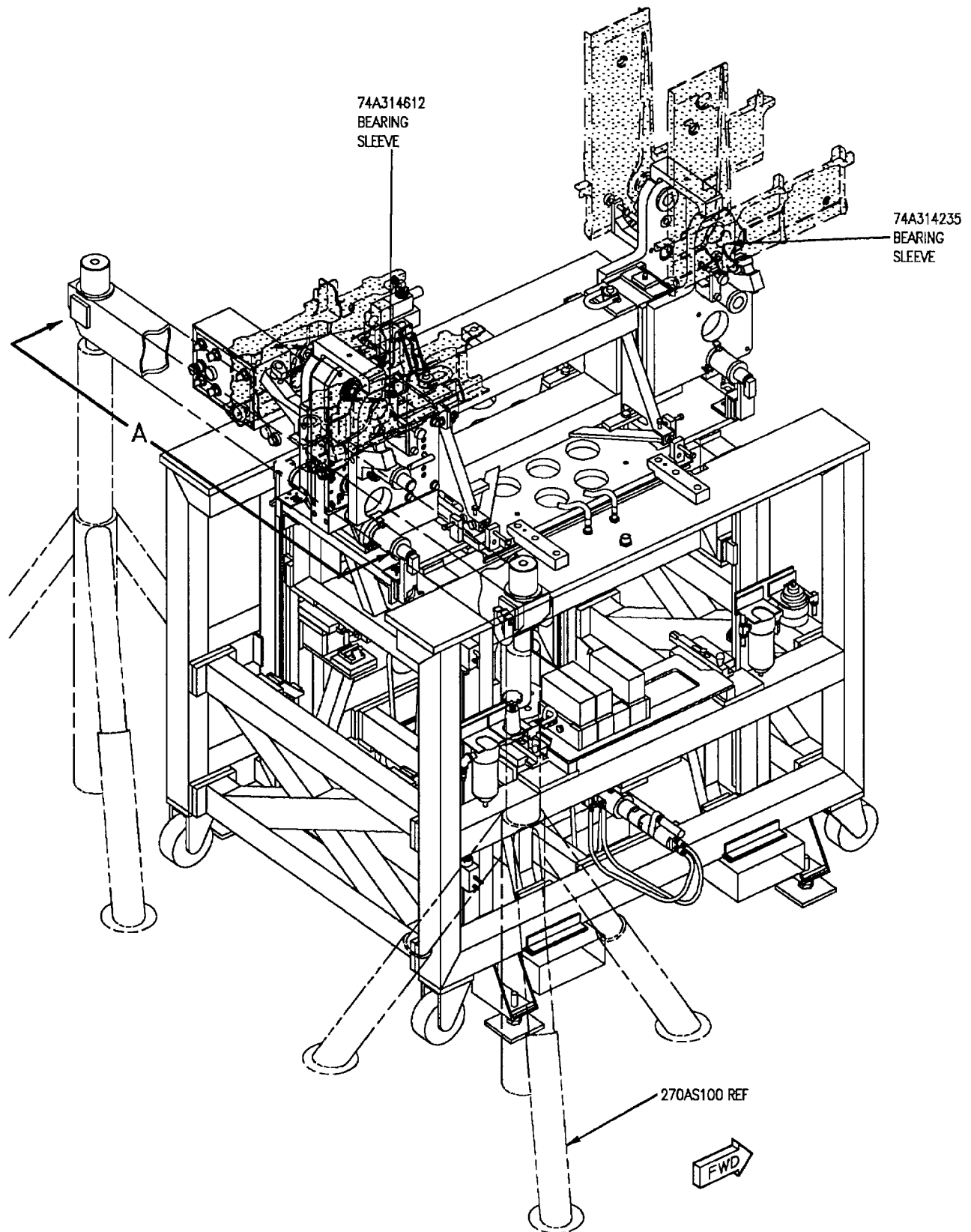


Figure 17. Sleeve Reaming (Sheet 1)

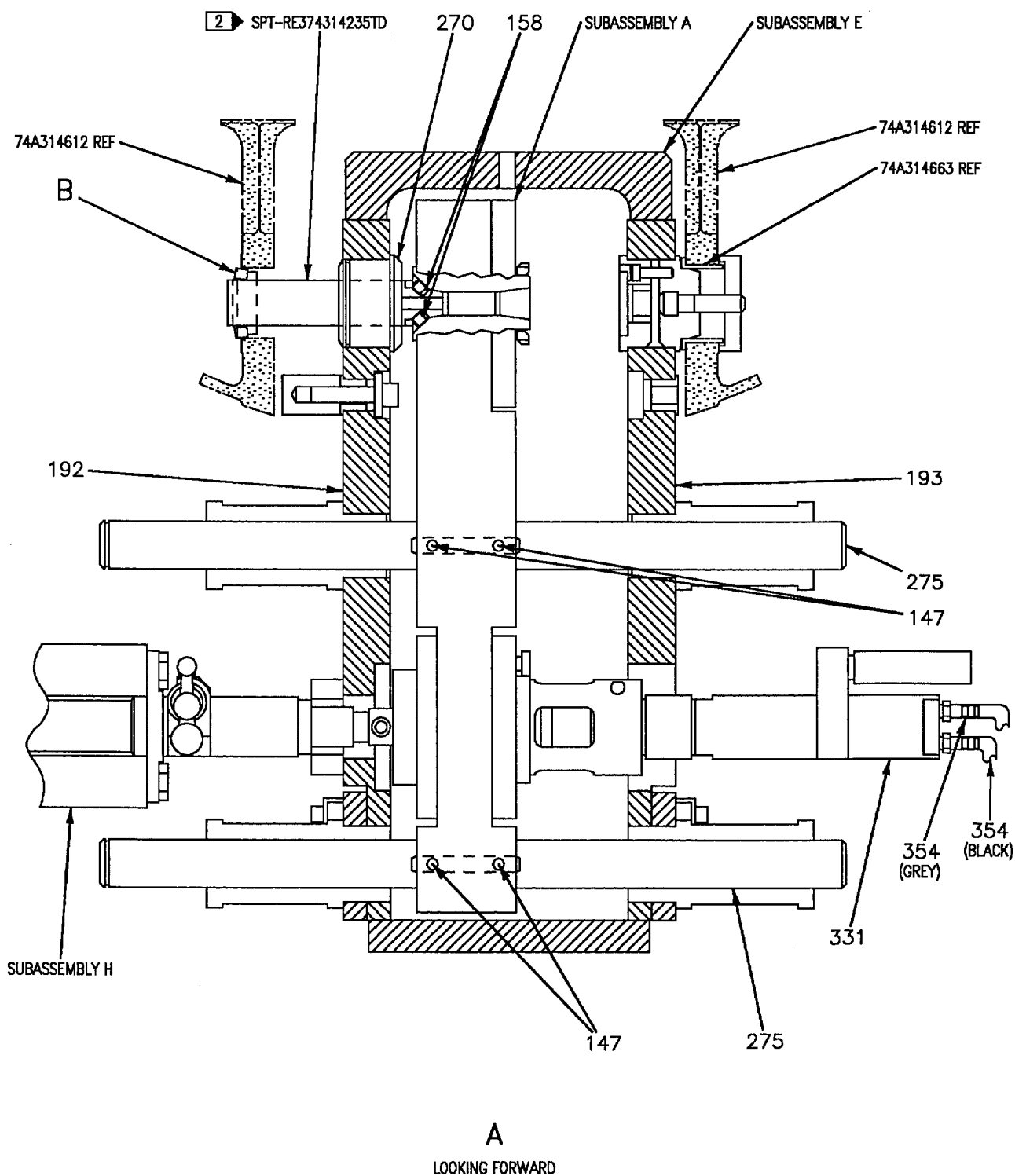
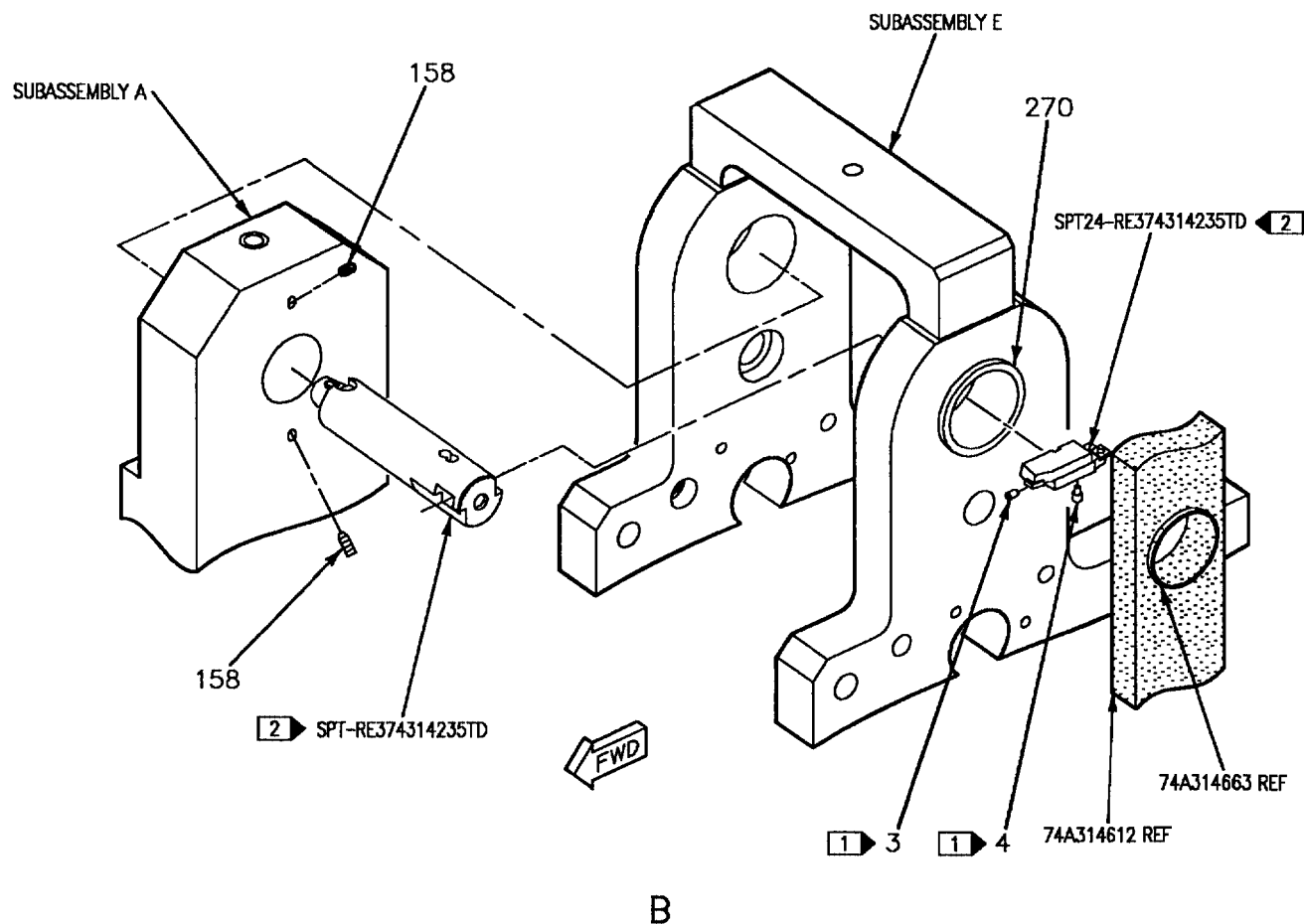


Figure 17. Sleeve Reaming (Sheet 2)



LEGEND

- 1 DETAILS 3 AND 4 ARE PART OF SPT24-RE374314235TD, BORING CARTRIDGE ASSEMBLY.
- 2 PARTS ARE PART OF RE374314235 N.L.G. TRUNNION DRAG BRACE SUPPORTS TOOL SET.

Figure 17. Sleeve Reaming (Sheet 3)

Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing operation.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
SPT-RE374314235TD 2	Boring Bar	Used to align and secure reamer, SPT24-RE374314235TD to Subassembly A.
SPT24-RE374314235TD 2	Reamer	Used for boring inside diameter of bearing sleeve 74A314663.
3 1	Adjusting Screw	Used to make adjustments to reamer, SPT24-RE374314235TD.
4 1	Lockscrew	Used to secure reamer, SPT24-RE374314235TD to boring bar, SPT-RE374314235TD.
147	Set Screws	Used to secure shaft (detail 275) to Subassembly A.
158	Set Screws	Used to lock in place boring bar, SPT-RE374314235TD into Subassembly A.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace fitting, 74A314612.
193	Plate	Part of Subassembly E, used to align and for attaching components on right side of drag brace area.
270	Bushing	Used to align boring bar, SPT-RE374314235TD into Subassembly A.
275	Shaft	Used to support Subassembly A in Subassembly E, attached with (detail 147).
331	Motor	Used to operate the system.
354	Hoses	Used to provide air pressure to motor (detail 331).
LEGEND		
1 Detail 3 and 4 are part of SPT24-RE374314235TD Ream Cartridge-Support Assembly. 2 Flagged parts are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set.		

Figure 17. Sleeve Reaming (Sheet 4)

46. **SPOTFACING.** Figure 18. Spray mist coolant tank assembly RE874000002-1, is used during spotfacing per (A1-F18AC-SRM-200 WP004 16).

NOTE

Left and right procedures the same.

a. Remove screw (detail 271) securing holding stop (detail 382) onto plate (detail 192), figure 7, detail E.

b. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 18, detail A.

c. Pivot Subassembly A aft to gain access to insert shaft (detail 213) into bushing (detail 270) and position as far outboard as possible, figure 18, detail A.

d. Attach holding stop (detail 382) to plate (detail 192) using screw (detail 271), figure 7, detail E.

e. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 18, detail A.

f. Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 18, detail B.

g. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in figure 18, detail A.

h. Secure shaft end or Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 18, detail A.

i. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount shaft (detail 213) into Subassembly A and lock it in place with two set screws (detail 158), figure 18, detail A.

NOTE

Check cutter, SPT10-RE374314235TD for sharpness after each operation. Cutter may require sharpening.

j. Slide cutter, SPT 10-RE374314235TD between Subassembly E and left hand drag brace fitting, 74A314612, onto shaft (detail 213). Rotate cutter, SPT10-RE374314235TD 90° to lock it in place, figure 18, detail C.

k. Install shim (detail 25) onto cutter, SPT10-RE374314235TD using retaining ring (detail 16) to lock it in place, figure 18, detail C.

l. Set depth of spotfacer, SPT10-RE374314235TD according to the reading taken during paragraph 9, step q, with stop collar (detail 214), figure 18, detail C.

m. Slide Subassembly A as far as possible to the left side of Subassembly E.

n. Remove motor (detail 331) from bracket (detail 43) which is located on right hand side of tool frame.

o. Install motor (detail 331) through lower 4.00 inch diameter hole in plate (detail 192) locking it in place with Subassembly A, figure 18, detail A.



Make sure hoses (detail 354) are connected to proper inlets.

p. Connect hoses (detail 354) to motor (detail 331).

q. On Subassembly L, turn SPINDLE knob switch to FWD LH position and turn FEED knob switch to POWER position. Turn POWER FEED to L.H. position, figure 18, detail D.

r. Power hand feed cutter, SPT10-RE374314235TD to spot face bearing sleeve 74A314663, figure 18, detail A.

s. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 18, detail D.

t. Back cutter, SPT10-RE374314235TD from face of bearing sleeve 74A314663, figure 18, detail A and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 18, detail D.

u. Loosen two set screws attaching spacer (detail 214) on shaft (detail 213), figure 18, detail C.

v. Unlock retaining ring (detail 16) and remove it and shim (detail 26) from cutter, SPT10-RE374314235TD, figure 18, detail C.

w. Slide spacer (detail 214) from shaft (detail 213), figure 18, detail C.

x. Rotate cutter, SPT 10-RE374314235TD 90 on shaft (detail 213) and remove it between drag brace fitting 74A314612 and Subassembly E, figure 18, detail A.

y. Pivot Subassembly A aft to gain access, remove shaft (detail 213) from bushing (detail 270), figure 18, detail A.

z. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 18, detail A.

aa. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Remove shaft (detail 213) from Subassembly A, by unscrewing two set screws (detail 158), figure 18, detail A.

ab. Remove Subassembly E.

(1) Disconnect hoses (detail 354) from motor (detail 331).

(2) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 192).

(3) On Subassembly L, turn LIFT knob switch to PARK position, figure 18, detail D.

(4) Remove motor (detail 331) through lower 400 diameter hole in plate (detail 193).

(5) Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame, figure 18, detail A.

(6) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

(7) Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334), detail B. Remove Subassembly H through lower hole in plate (detail 192), detail A. Attach Subassembly H to left side of tool frame with knob (detail 655).

(8) At right hand trunnion support 74A314235, remove screw (detail 284) and cap (detail 292) from plate (detail 191) figure 14, detail B.

(9) At left hand trunnion support 74A314235, remove screw (detail 287) and cap (detail 292) from plate (detail 190), figure 14, detail B.

(10) At right side drag brace support 74A314612, remove screw (detail 281) and cap (detail 280) from plate (detail 193), figure 18, detail A.

(11) On left hand trunnion support 74A314235, remove two nuts (detail 285) holding plug (detail 391) to plate (detail 190). Remove plug (detail 391) from inboard side of plate (detail 190), figure 14, detail B.

(12) On left hand trunnion fitting 74A314235, remove retaining screw (detail 322) and jack (detail 323) attached to trunnion fitting, 74A314235. Remove cap screw (detail 324) and clamp (detail 26) from plate (detail 190), figure 7, detail F.

(13) On right side trunnion fitting 74A314235, remove retaining screw (detail 322) and jack (detail 325) attached to trunnion fitting, 74A314235. Remove cap screw (detail 326) and clamp (detail 27) from plate (detail 191), figure 7, detail F.

(14) On left hand side of longeron 74A314612, remove retaining screw (detail 317) and jack (detail 320) attached to longeron, 74A314612. Remove cap screw (detail 321) and clamp (detail 25) from plate (detail 192), figure 7, detail G.

(15) On right hand side of longeron 74A314612, remove retaining screw (detail 317) and jack (detail 318) attached to longeron, 74A314612. Remove cap screw (detail 319) and clamp (detail 24) from plate (detail 193), figure 7, detail G.

(16) On left hand side of longeron 74A314619, remove clamp assembly (309) and jack (detail 311) attached to longeron, 74A314619. Remove two screw (detail 312) and block (detail 316) from plate (detail 191), figure 7, detail H.

(17) On right hand side of longeron 74A3124619, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314619. Remove two screws (detail 318) and block (detail 315) from plate (detail 190), figure 7, detail H.

(18) On left hand side of longeron 74A314612, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314612. Remove two screws (detail 312) and block (detail 314) from plate (detail 192), figure 7, detail J.

(19) On right hand side of longeron 74A314612, remove clamp assembly (detail 309) and jack (detail 311) attached to longeron 74A314612. Remove two screws (detail 312) and block (detail 313) from plate (detail 193), figure 7, detail J.

(20) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 7, detail K.



Make sure hoses (detail 354) are connected to proper inlets.

(21) Connect hoses (detail 354) to motor (detail 331).

(22) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and

lower lift platform (detail 550) to it's lowest position, figure 18, detail D.

(23) On right side trunnion support 74A314235, remove screw (detail 278) three places and bushing (detail 276) from inboard side of plate (detail 191). Remove sleeve fitting (detail 393 or 395) from outboard side of plate (detail 191), figure 14, detail B.

(24) On right side brace fitting 74A314612, remove screw (detail 278) three places and bushing (detail 276) from inboard side of plate (detail 193). Remove sleeve fitting (detail 394 or 396) from outboard side of plate (detail 193), figure 16, detail A.

(25) In left side drag brace area 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 10, detail B.

(26) In left side trunnion support area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 10, detail A.

(27) If repair is complete, do locating fixture removal, this WP.

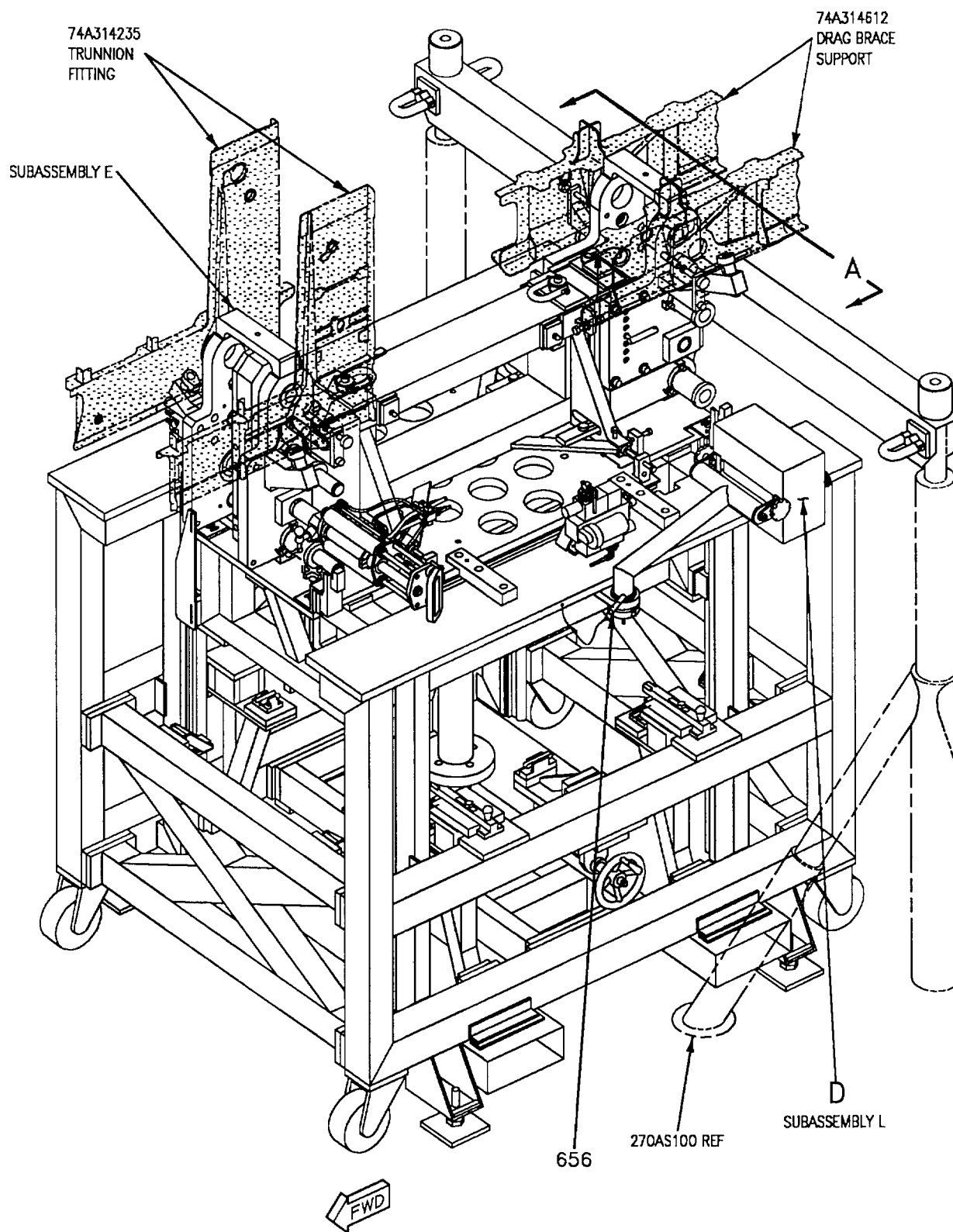


Figure 18. Spotfacing (Sheet 1)

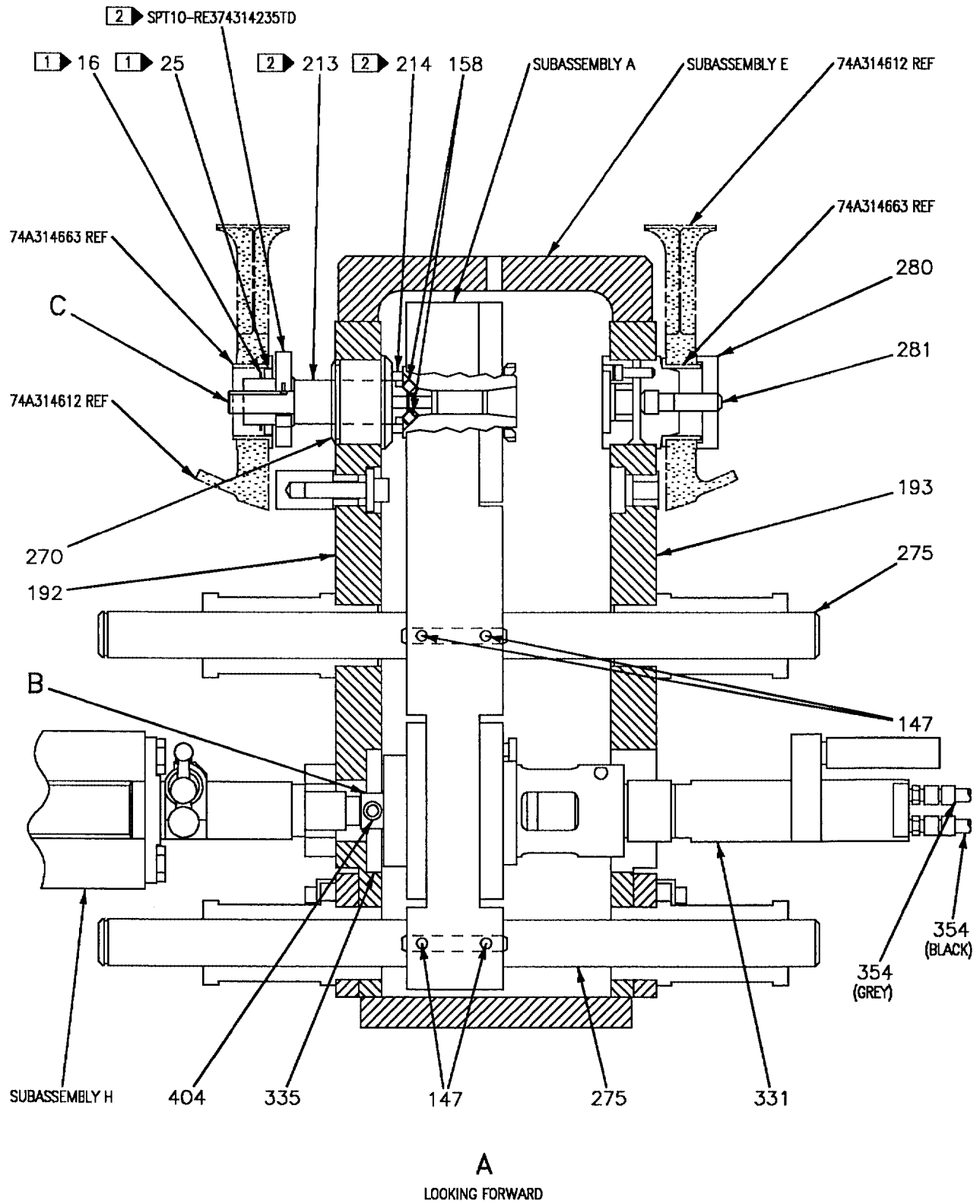
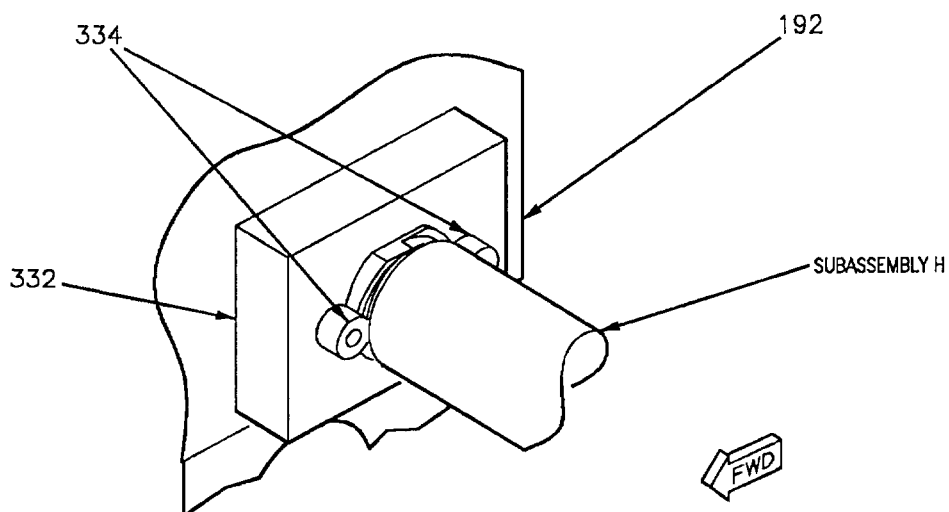
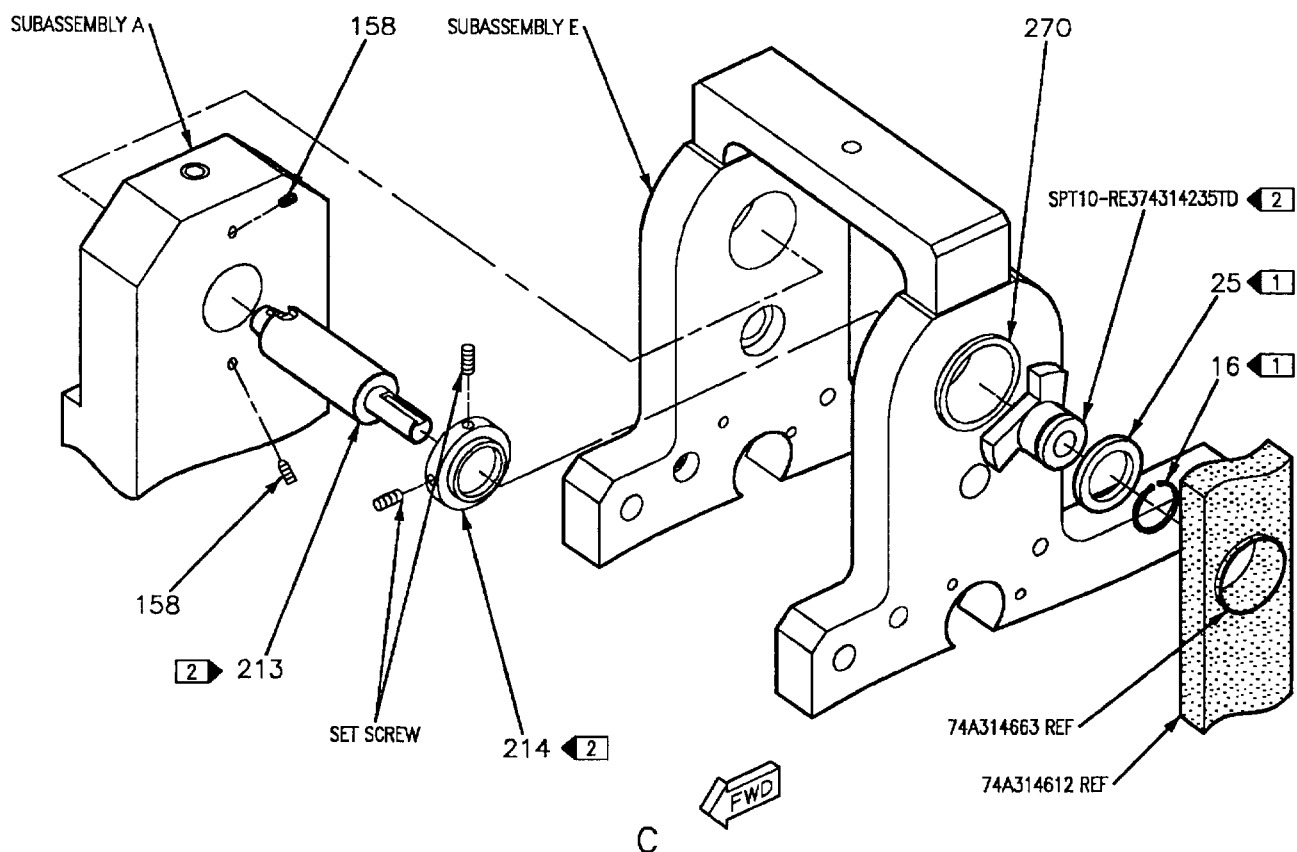


Figure 18. Spotfacing (Sheet 2)

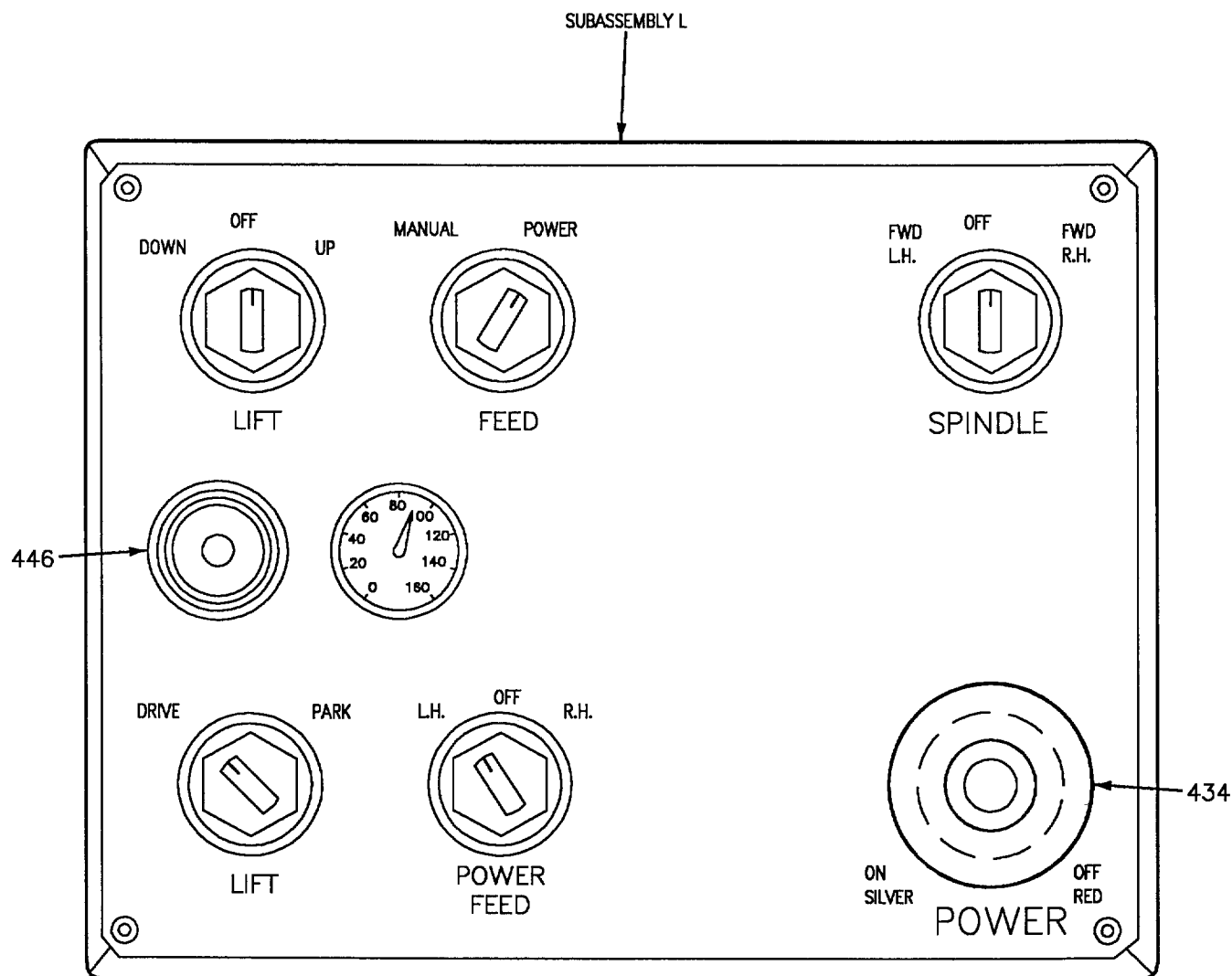


B



C

Figure 18. Spotfacing (Sheet 3)



D

LEGEND

- 1 DETAILS 16 AND 25 ARE PART OF SPT10-RE374314235TD,
SPOTFACER-SUPPORT ASSEMBLY.
- 2 DETAILS 12, 213 AND 214 ARE PART OF RE374314235
N.L.G. TRUNNION DRAG BRACE SUPPORTS TOOL SET.

Figure 18. Spotfacing (Sheet 4)






Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing operation.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
SPT10-RE374314235TD 	Cutter	Used to spotface drag brace bearing sleeve, 74A314663.
16 	Retaining Ring	Used to hold (detail 25) onto cutter SPT10-RE374314235TD.
25 	Shim	Used to align (detail 213) to inside diameter of 74A314663, bearing sleeve.
43	Bracket	Holds Subassembly R on the lower right hand side of the tool frame when not in use on Subassembly E.
147	Set Screws	Secures (detail 275) to Subassembly A in the proper position.
158	Set Screws	Used to lock in place shaft, (detail 213) into Subassembly A.
192	Plate	Part of Subassembly E, used to align and for attaching components in left hand side of drag brace.
193	Plate	Part of Subassembly E, used to align and for attaching components on right side of drag brace area.
213 	Shaft	Used to align and secure cutter, SPT10-RE374314235TD to Subassembly A.
214 	Spacer	Used to gage amount that SPT10-RE374314235TD can take off of drag brace sleeve, 74A314663.
270	Bushing	Used to guide shaft (detail 213) into Subassembly A.
275	Shaft	Used to support Subassembly A in Subassembly E attached with (detail 147).
280	Cap	Used to take up the slack in Z plane in drag brace area. Secured with (detail 281).
281	Screw	Used to secure (detail 280) to right hand drag brace, 74A314612.

Figure 18. Spotfacing (Sheet 5)

Detail No.	Name	Function
331	Motor	Used to supply feed to operate Subassembly A.
332	Block	Attached to Subassembly E and used as a guide for Subassembly H.
334	Lock Button	Used to lock Subassembly H into place on Subassembly E.
335	Clevis	Used to attach Subassembly H to Subassembly A, secured with (detail 404).
354	Hoses	Used to provide pressure to motor (detail 331).
404	Shoulder Screw	Used to secure (detail 335) and Subassembly H.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
478	Fitting	Used to connect hoses (detail 354) to motor (detail 331) when installed on Subassembly A.
656	L-pin	Used to secure Subassembly L arm when not in use.
LEGEND		
<div> <div>1</div> Detail 16 and 25 are part of SPT10-RE374314235TD Spotfacer - Support Assembly. </div> <div> <div>2</div> Detail 213 is part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set. </div>		

Figure 18. Spotfacing (Sheet 6)

47. LOCATING FIXTURE REMOVAL. Figure 19.

a. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift, lift platform (detail 550) up until it aligns up with slide (detail 195), figure 19, detail A.

b. Loosen bolt (detail 643) from slide (detail 195), using knob (detail 418). Slide, slide (detail 195) inboard until pin engages hole in plate (detail 240), typical four places. Tighten bolt (detail 643) down, figure 19, detail D.

c. On Subassembly L, turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK. Push red button in on POWER button to deactivate the system, figure 19, detail A.

d. On left hand trunnion 74A314235, remove screw (detail 273) securing holding pin bushing (detail 272) from inboard side of plate (detail 190). Remove bushing (detail 263) from plate (detail 190), figure 19, detail B.

e. On left hand drag brace fitting 74A314612, remove screw (detail 273) securing holding pin bushing (detail 272) from inboard side of plate (detail 192). Remove holding pin bushing (detail 272) and bushing (detail 263) from plate (detail 192), figure 19, detail C.

f. On right hand drag brace fitting 74A314612, remove bushing (detail 262) from plate (detail 193), figure 19, detail C.

g. On right hand trunnion fitting 74A314235, remove bushing (detail 263) from plate (detail 191), figure 19, detail B.

h. Raise leveling feet (detail 31W) four places, until casters are firmly on the floor.

i. Disconnect shop air supply to elbow (detail 469) on right hand side of locating fixture (detail 31), figure 2, sheet 2.

j. Roll locating fixture (detail 31) out from under nose landing gear bay.

48. FINAL AIRCRAFT PREPARATION.

a. Vacuum clean any loose debris from nose landing gear area.

b. Install entire nose landing gear assembly (A1-F18AC-130-300).

c. Reinstall ST3M723N2M9F3 gang channel on lower right hand longeron 74A314612, figure 1, detail C.

d. Reinstall 74A314454 support on left hand web 74A314818, figure 1, detail C.

e. Reinstall 74A314228 former and 74A314424 fairing to right hand longeron 74A314619, figure 1, detail C.

f. Reinstall 74A314253 support, 74A314232 angle and 74A314233 angle on forward inboard right hand longeron 74A314619, figure 1, detail D.

g. Reinstall ST3M723N2M 10-5 gang channel on 74A314619 longeron, figure 1, detail C.

h. Reinstall 74A314255 support, 74A314424 fairing and 74A314228 former to lower left hand keel, figure 1, detail C.

i. Reinstall the following tube assemblies in left hand trough area: 74A830864, 74A830863, 74A831316, 74A831227, 74A710301, 74A690703, 74A69701, 74A710300, 74A690702, 74A690700, 74A690706 and 74A690707, (A1-F18AC-PIM-000, WP029 00, WP030 00 and WP031 00).

j. Reinstall the following tube assemblies in right hand trough area: 74A690973, 74A690777, 74A690972, 74A690780, 74A580686, 74A580609, 74A690969, 74A690925, 74A690966, 74A690926, 74A580671, 74A580670, 74A830948, 74A830766, 74A830765, 74A830947, 74A580720 and 74A580690, (A1-F18AC-PIM-000, WP038 00, WP039 00 and WP040 02).

k. Install door 25, door 30 and door 35, (A1-F18AC-LMM-010).

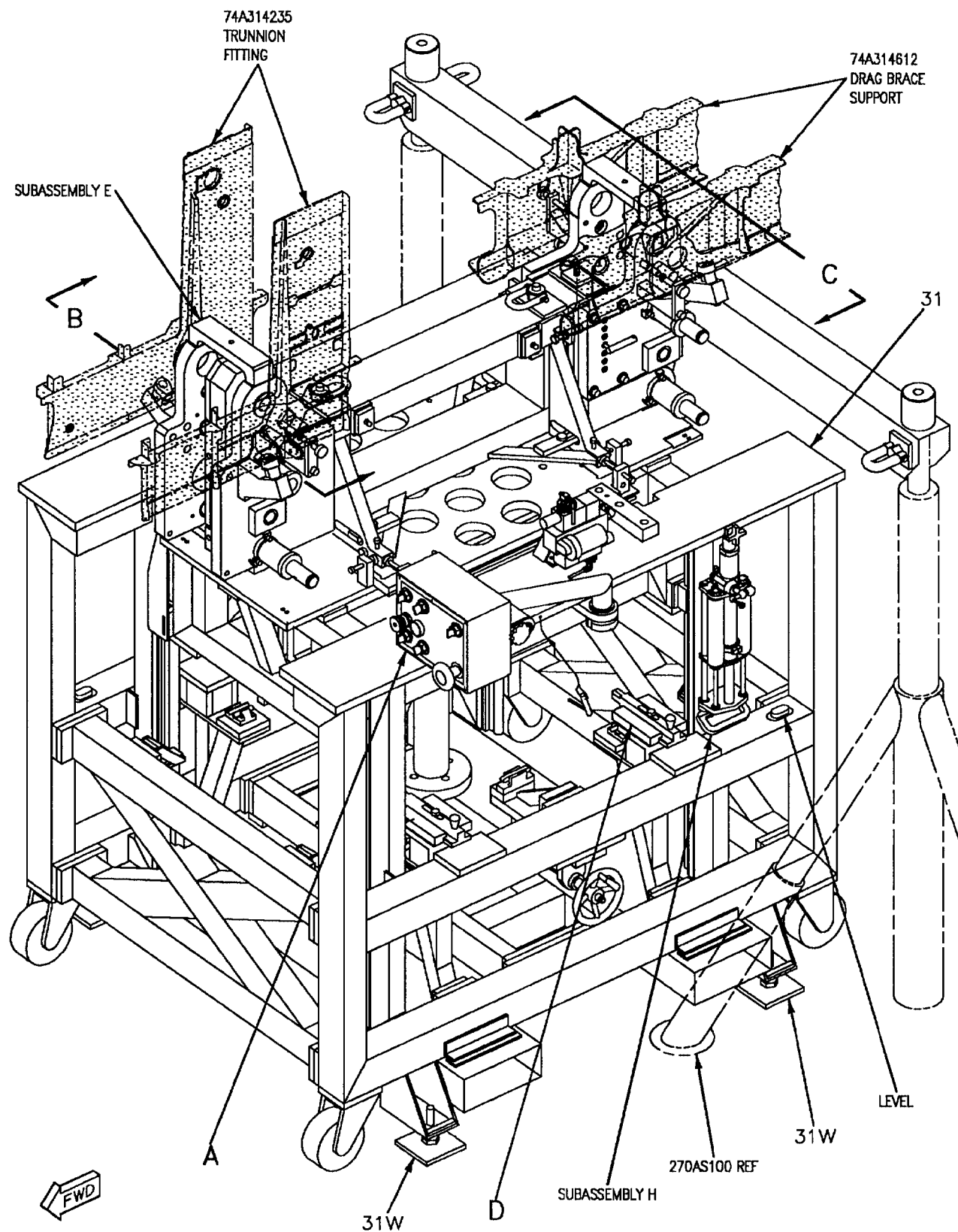


Figure 19. Locating Fixture Removal (Sheet 1)

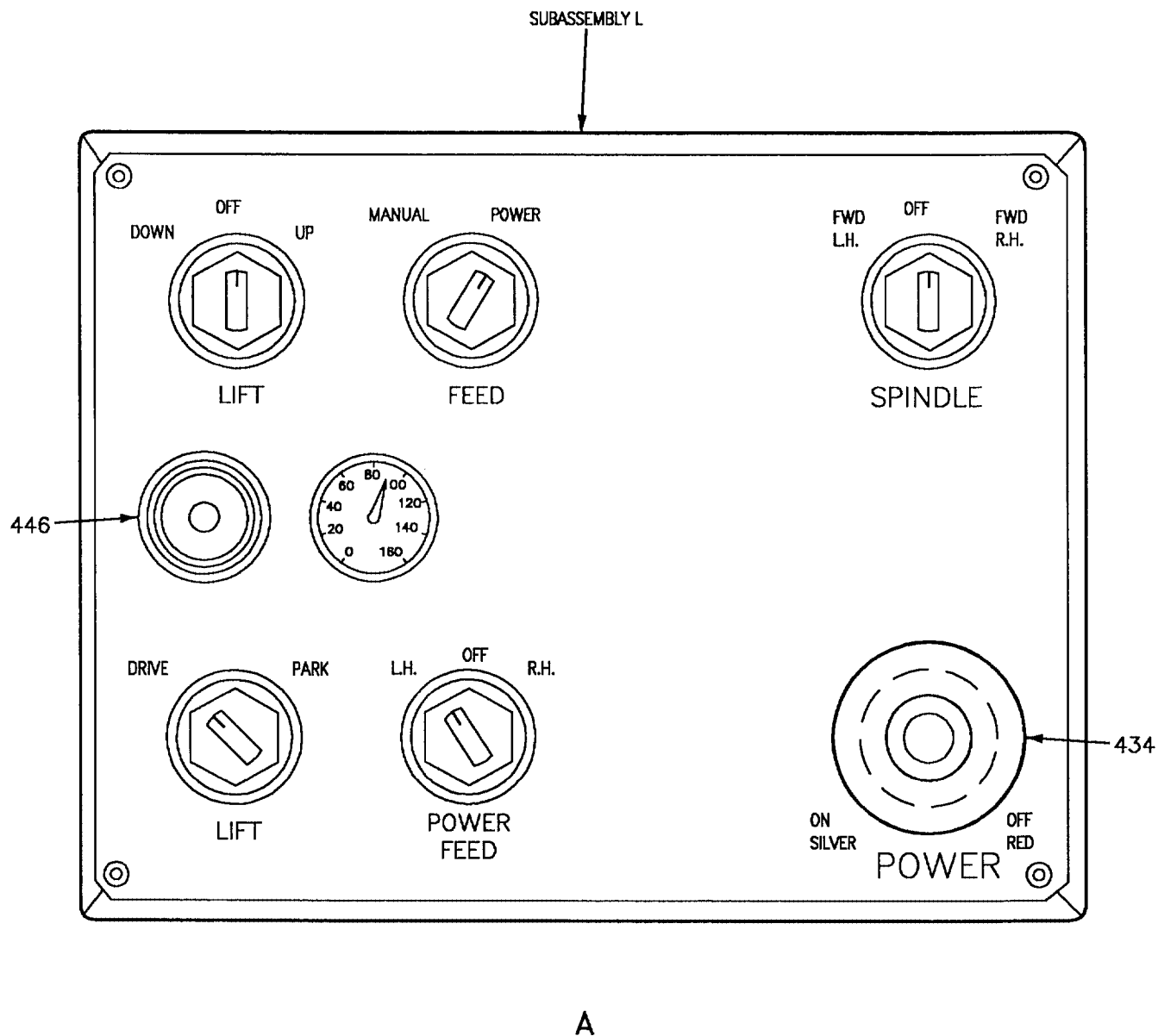
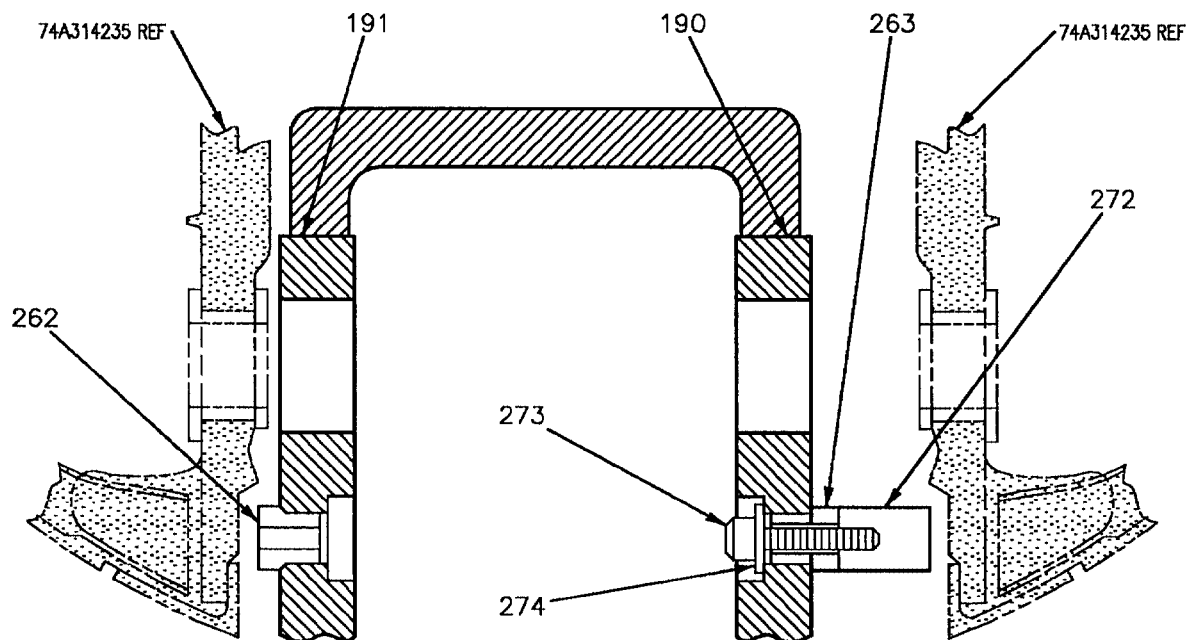
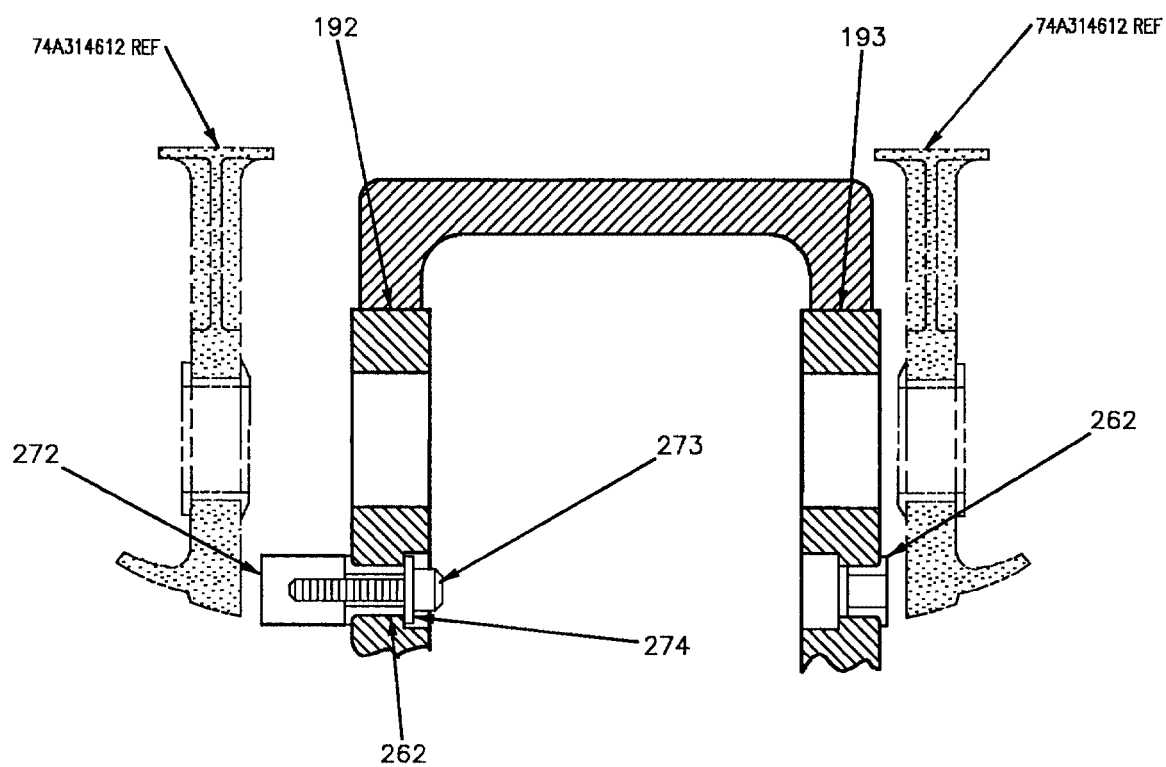


Figure 19. Locating Fixture Removal (Sheet 2)



B

LOOKING AFT



C

LOOKING FORWARD

Figure 19. Locating Fixture Removal (Sheet 3)

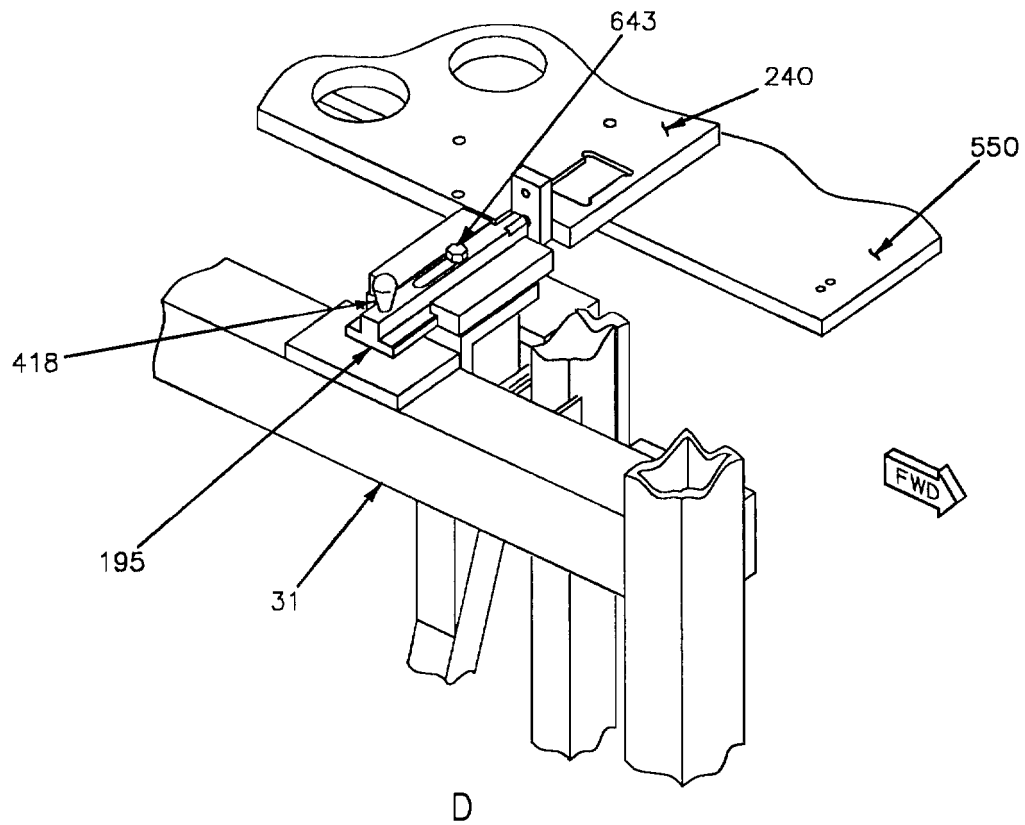


Figure 19. Locating Fixture Removal (Sheet 4)

Detail No.	Name	Function
Subassembly L	Control Panel	Houses controls to operate locating fixture.
31	Fixture	Used to support Subassembly E and other components.
31W	Leveling feet	Used to level the fixture (detail 31).
190	Plate	Part of Subassembly E, used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.
195	Slide	Used to secure plate (detail 240) in solid position.
240	Plate	Used to support and lift Subassembly E.
263	Bushings	Used to check for correct X plane location in left and right hand trunnion area.
272	Pin Bushings	Used to check for correct X plane location in left hand trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
418	Knob	Used to disengage slide (detail 195) from plate (detail 240).
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
550	Lift Platform	Used to lift Subassembly E up or down.
643	Bolt	Used to secure slide (detail 195) to fixture (detail 31).
649	Elbow	Used to connect shop air to fixture (detail 31).

Figure 19. Locating Fixture Removal (Sheet 5)

DEPOT MAINTENANCE**STRUCTURE REPAIR****NOSE LANDING GEAR TRUNNION, DRAG BRACE SUPPORTS, REPLACEMENT**

Reference Material

Structure Repair General Information	A1-F18AC-SRM-200
Adhesive, Cement, and Sealant; Preparation and Application	WP011 00
Accessory Kits and Spray Coolant Tank	WP004 16
Hydraulic Pump Assembly, Pneumatic	WP004 18
Aircraft Corrosion Control	A1-F18AC-SRM-500
Landing Gear, Arresting Hook, and Launch Bar, Finish System and Markings	WP042 00
Structure Repair	A1-F18AC-SRM-222
Forward Fuselage External Numbered Metal Doors Replacement	WP032 00
Structure Repair	A1-F18AC-SRM-221
Locating Fixture RE274314235-1, Nose Landing Gear Trunnion, Drag Brace Supports	WP023 02

Alphabetical Index

Subject	Page No.
Description	2
Drag Brace Support Fitting Reaming	105
After Cold Work Reaming	111
Cold Working Drag Brace	109
Drag Brace Bearing Sleeve Installation, Nominal Size, 74A314663	115
Drag Brace Reaming	117
Drag Brace Spotfacing	118
Reaming	107
Set Up	105
Spotfacing	113
Four Support Fittings, Replacement	2
Set Up	2
One Support Fitting, Replacement	52
Set Up	52
Set Up And Installation Of Subassembly B	140
Three Support Fittings, Replacement	16
Set Up	16
Trunnion Support Fitting Reaming	71
Cold Working Trunnion	75
Reaming	73
Set Up	71
Spotfacing	79
Support Second Pass Reaming After Cold Working	76
Trunnion Bearing Sleeve Installation, Nominal Size, 74A314395	81
Trunnion Sleeve Reaming	83
Trunnion Spotfacing	84
Two Support Fittings, Replacement	30
Set Up	30

Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE274314235	Locating Fixture - N.L.G. Trunnion/Drag Brace Supports
RE374314235	Tool Set, N.L.G. Trunnion/Drag Brace Supports
-	Torque Wrench, 0 to 150 Foot Pounds
74D110323-1001	Hydraulic Pump Assembly-Pneumatic

c. Remove fasteners attaching damaged nose landing gear brace support to mating structure. See figure 9 for fastener location.

d. Remove damaged nose landing gear drag brace support fitting.



Isopropyl Alcohol, TT-I-735 2

e. Clean all residual sealant from mating structure using plastic scraper and cheesecloth moistened with isopropyl alcohol.

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
TT-I-735	Isopropyl Alcohol
MIL-S-83430, CLASS B-1/2	Sealing Compound

NOTE

Manufactured replacement of trunnion support fitting 74A314235, leaving 0.090 extra on boss for facing. Bore hole to 2.00 +0.002 -0.000 diameter.

Manufactured replacement of drag brace support fitting 74A314612, leaving 0.090 extra on boss for facing. Bore hole to 2.308 +0.002 -0.000 diameter.

1. DESCRIPTION.

2. This work package controls maintenance instructions for setup, installation and removal of drag brace and trunnion support fittings, using locating fixture, RE274314235 and tool set, RE374314235.

4. SETUP.

NOTE

Left and right procedures the same.

3. FOUR SUPPORT FITTINGS, REPLACEMENT. Figure 1.

NOTE

Do only applicable steps for the fitting being replaced.

a. Remove fasteners attaching damaged nose landing gear trunnion support fitting to mating structure. See figure 8 for fastener location.

b. Remove damaged nose landing gear trunnion support fitting.

a. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace fittings. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, detail B.

b. Loosen bolt (detail 245), clamp (detail 244) four places that are positioned on plate (detail 240), to position Subassembly E to aircraft by locating C/B #1 to Y284.9500, C/B #1 and #2 to Z81.0000 and C/B #1, #2 and #3 to X-.9200, detail A.

c. Use adjustments screws (detail 242, 243 and 248) four places to help position plugs in trunnion and drag brace support fittings. Tighten bolt (detail 245) four places, detail A.

d. If C/B #1 and #2 can not be reached to rig tool, use C/B #4 and #5. Rig C/B #4 to X 3.5800, Y292.9500, Z78.0000 and C/B #5 to X 4.5000, Y314.4500, Z78.0000.

e. Locate right hand trunnion support fitting, 74A314325 by installing plug (detail 291) into 2.751 diameter hole in plate (detail 191), securing with cap (detail 292) by attaching it with screw (detail 290), detail C.

f. Locate left hand trunnion support fitting, 74A314325 by installing plug (detail 291) into 2.751 diameter hole in plate (detail 190), securing with cap (detail 292) by attaching it with screw (detail 290), detail C.

g. Locate right hand drag brace support fitting, 74A314612 by installing plug (detail 289) into 2.751 diameter hole in plate (detail 193), securing with cap (detail 280) by attaching it with screw (detail 290), detail D.

h. Locate left hand drag brace support fitting, 74A314612 by installing plug (detail 289) into 2.751 diameter hole in plate (detail 192), securing with cap (detail 280) by attaching it with screw (detail 290), detail D.

i. Place two L-pins (detail 264) in Nom position on plates (detail 192 and 193), detail A.

j. Install bushing (detail 262) into plate (detail 192) and holding pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left hand drag brace support fitting 74A314612, detail D.

k. Install bushing (detail 262) into plate (detail 193) in right hand drag brace support fitting 74A314612, detail D.

l. Install bushing (detail 263) and holding pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left hand trunnion support fitting 74A314235, detail C.

m. Install bushing (detail 263) into plate (detail 191) in right hand trunnion support fitting 74A314235, detail C.

n. Install Subassembly F onto both sides of Subassembly E by pinning it with two L-pins (detail 178).

o. Swing Subassembly F up into the nose landing gear bay then pin support (detail 23) by pinning it with two L-pins (detail 178) on both sides of Subassembly E.

p. Check for correct X plane location, equal feel within ± 0.030 in nose landing gear bay at 74A314208 plates by inserting 0.250 inch feeler gage between L-brackets (detail 176) and 74A314208 plate on right side and between bushing (detail 177) and 74A314208 plate on left side, detail E.

q. Check for correct X plane location, equal feel within ± 0.030 at 74A314235 trunnion support fitting, by inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support fitting, right side and between bushing (detail 272) and 74A314235 trunnion support fitting on left side, detail C.

r. Check for correct X plane location, equal feel within ± 0.030 at 74A314612 drag brace support fitting area, by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support fitting, right side and between bushing (detail 272) and 74A314612 drag brace support fitting, on the left side, detail D.

s. Secure Subassembly E to airframe.

(1) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 323), detail G.

(2) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 325), detail G.

(3) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 318), detail H.

(4) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 320), detail H.

(5) On left hand side of longeron 74A314619, attach block (detail 315) to plate (detail 190) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, detail J.

(6) On right hand side of longeron 74A314619, attach block (detail 316) to plate (detail 191) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, detail J.

(7) On right hand side of longeron 74A314612, attach block (detail 313) to plate (detail 193) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, detail K.

(8) On left hand side of longeron 74A314612, attach block (detail 314) to plate (detail 192) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, detail K.

(9) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, detail F.

t. Install nose landing gear trunnion support fitting.



Use care when back drilling not to elongate holes in mating structure.

(1) Back drill holes in nose landing gear trunnion support fitting using existing holes in mating structure as a guide. See figure 8 for fastener location and hole diameter.

(2) Apply finish system as required to new nose landing gear trunnion support fitting and any other areas requiring finish system touch up (A1-F18AC-SRM-500, WP042 00).



Sealing Compound (Faying Sealant),
MIL-S-83430, Type B-1/2

8

(3) Faying surface seal interfacing surfaces on nose landing gear trunnion support fitting and mating structure. For sealant preparation and application (A1-F18AC-SRM-200, WP011 00).

u. Wet install fasteners. For fastener sealing (A1-F18AC-SRM-200, WP011 00). See figure 8 for fastener location and hole diameter.

v. For installing attaching hardware to skin (Door 25, 30 and 35) substructure. Refer to REPLACEMENT (A1-F18AC-SRM-222, WP032 00).

w. Apply finish system as required (A1-F18AC-SRM-500, WP042 00).

x. Install nose landing gear drag brace support fitting.



Use care when back drilling not to elongate holes in mating structure.

(1) Back drill holes in nose landing gear drag brace support fitting using existing holes in mating structure as a guide. See figure 9 for fastener location and hole diameter.

(2) Apply finish system as required to new nose landing gear drag brace support fitting and any other areas requiring finish system touch up (A1-F18AC-SRM-500, WP042 00).

(3) Faying surface seal interfacing surfaces on nose landing gear drag brace support fitting and mating structure. For sealant preparation and application (A1-F18AC-SRM-200, WP011 00).

y. Wet install fasteners. For fastener sealing (A1-F18AC-SRM-200, WP011 00). See figure 9 for fastener location and hole diameter.

z. For installing attaching hardware to skin (Door 25, 30 and 35) substructure. Refer to REPLACEMENT (A1-F18AE-SRM-650, WP036 00).

aa. Apply finish system as required (A1-F18AC-SRM-500, WP042 00).

ab. Remove Subassembly E.

(1) On left and right side of drag brace fitting 74A314612, remove screw (detail 290) and cap (detail 280) from plug (detail 289). Remove plug (detail 289), detail D.

(2) On left and right side of trunnion support fitting 74A314235, remove screw (detail 290) and cap (detail 292) from plug (detail 291). Remove plug (detail 291), detail C.

(3) In left side drag brace support fitting area 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) from plate (detail 192), detail D.

(4) In left side trunnion support fitting area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) from plate (detail 190), detail C.

(5) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, detail K.

(6) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, detail K.

(7) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, detail J.

(8) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, detail J.

(9) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace support fitting 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), detail H.

(10) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace support fitting 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), detail H.

(11) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion fitting 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), detail G.

(12) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), detail G.

(13) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), detail F.

(14) On Subassembly L, Turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, detail B.

(15) Do trunnion and/or drag brace support fitting reaming, this WP.

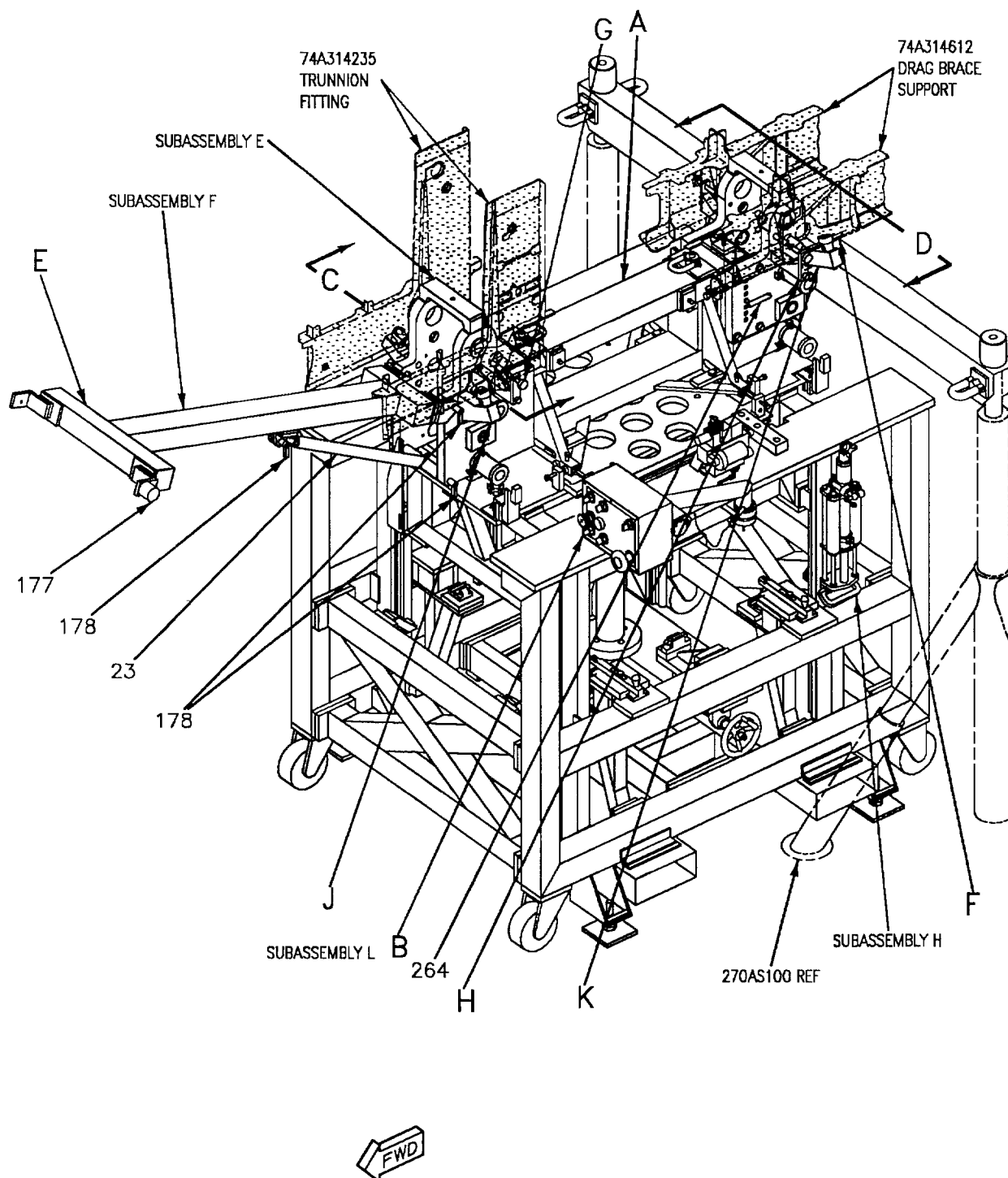
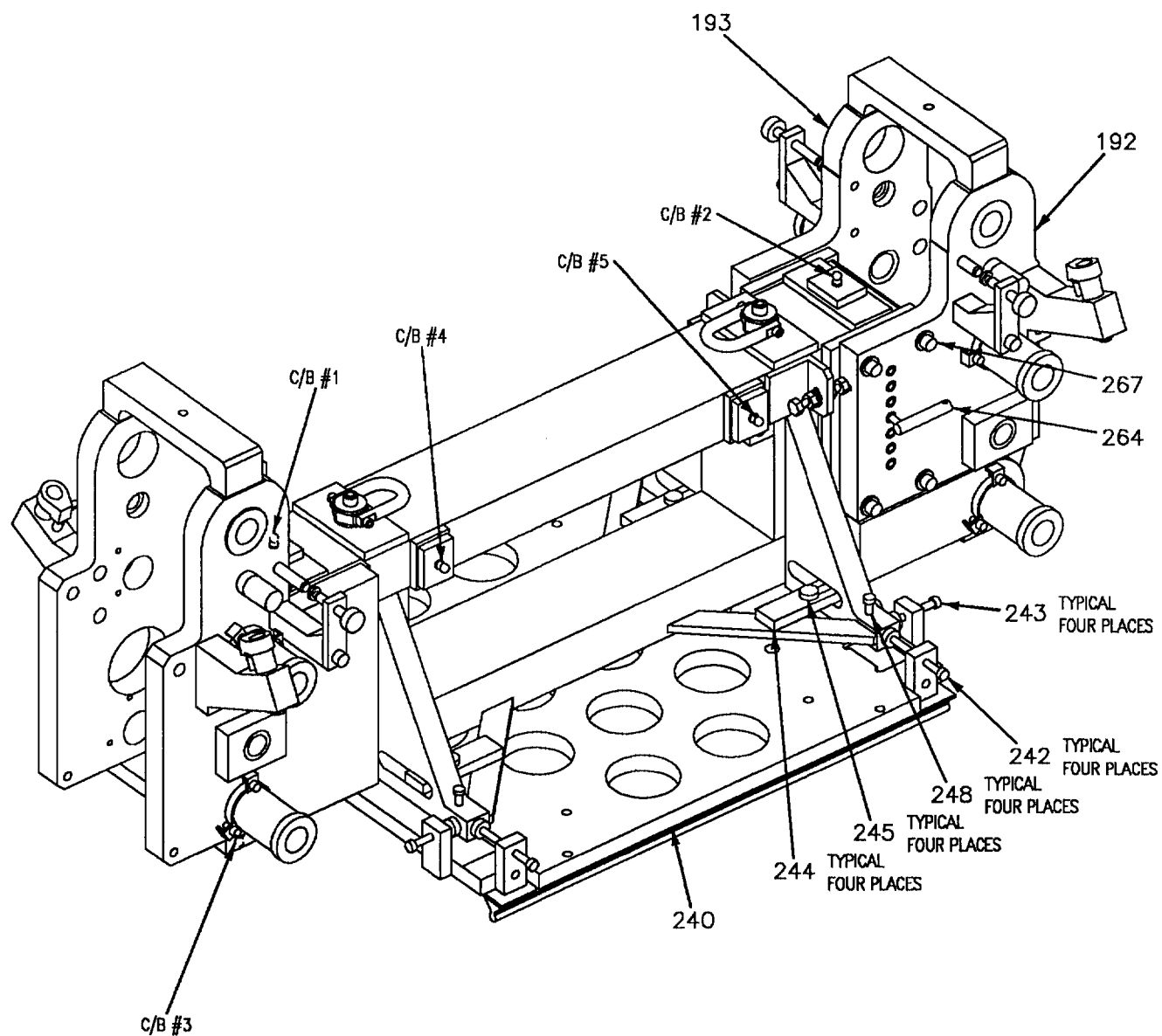


Figure 1. Four Support Fittings, Replacement (Sheet 1)



A

Figure 1. Four Support Fittings, Replacement (Sheet 2)

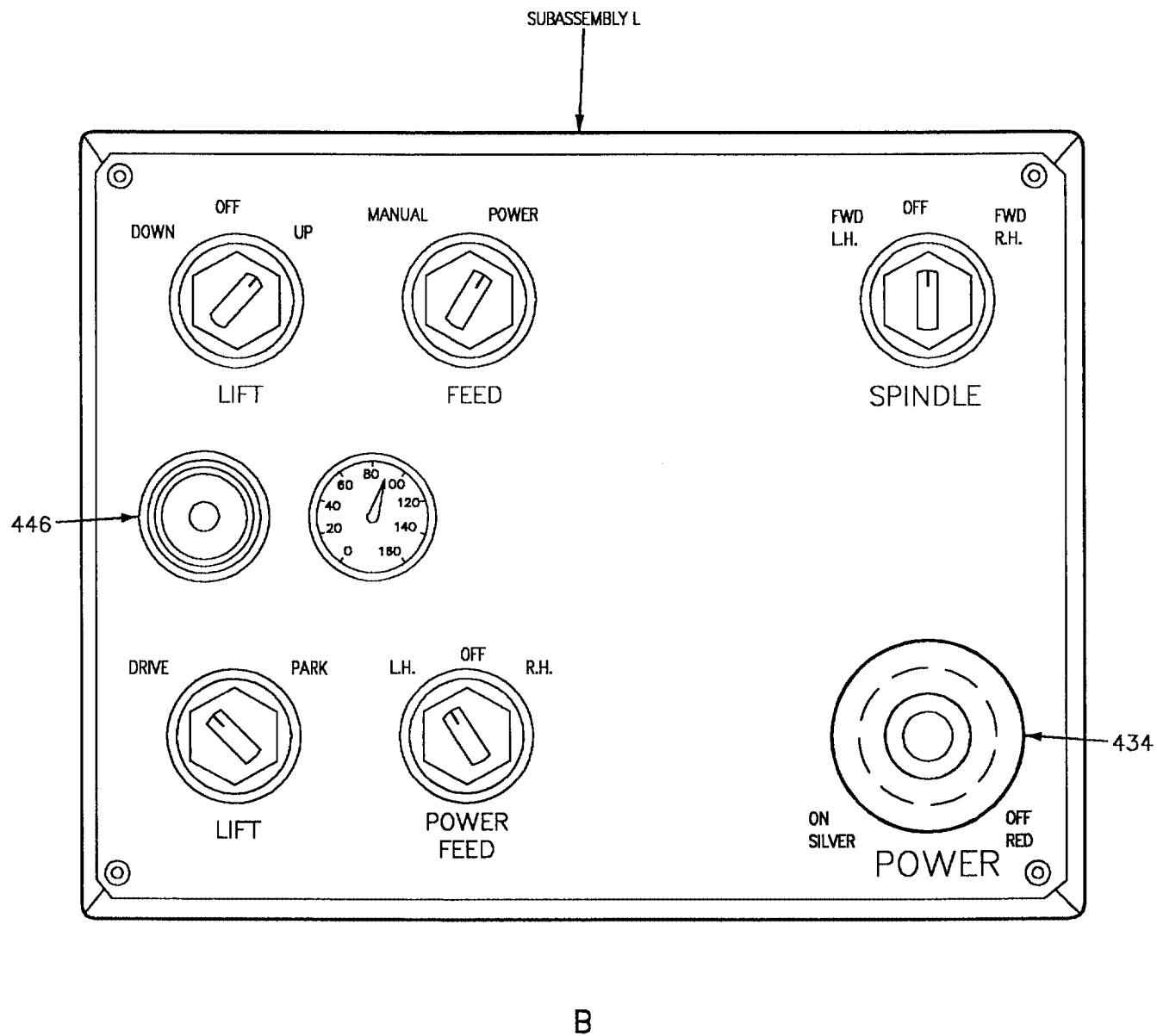


Figure 1. Four Support Fittings, Replacement (Sheet 3)

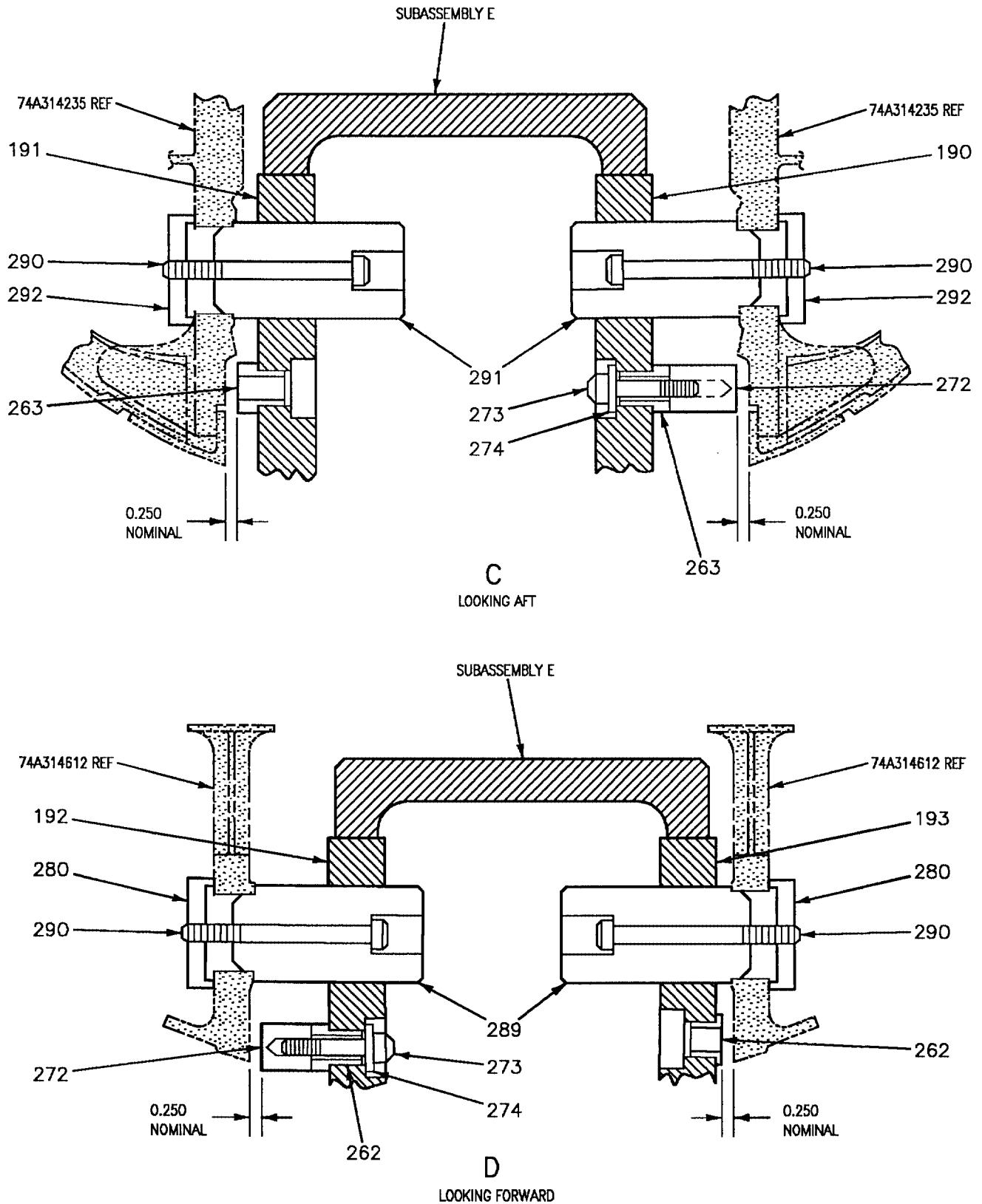


Figure 1. Four Support Fittings, Replacement (Sheet 4)

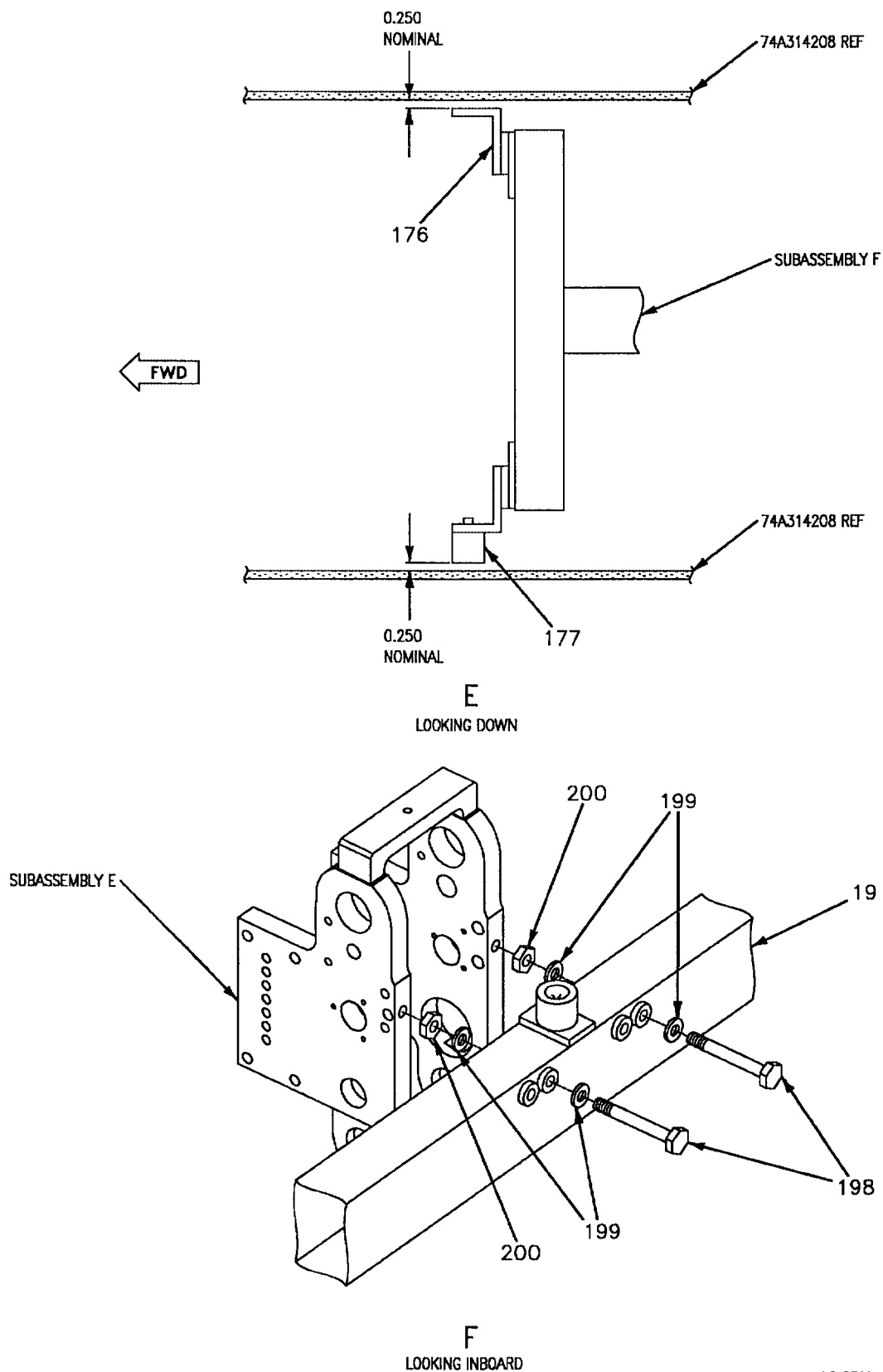
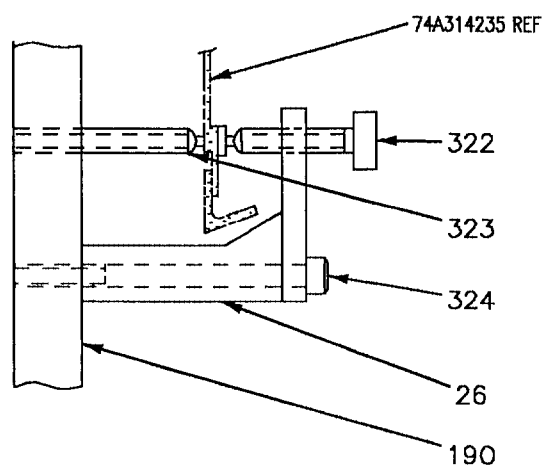
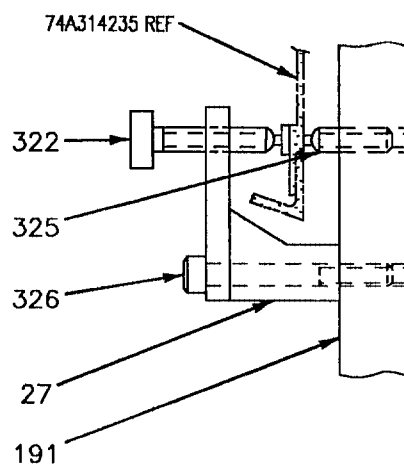
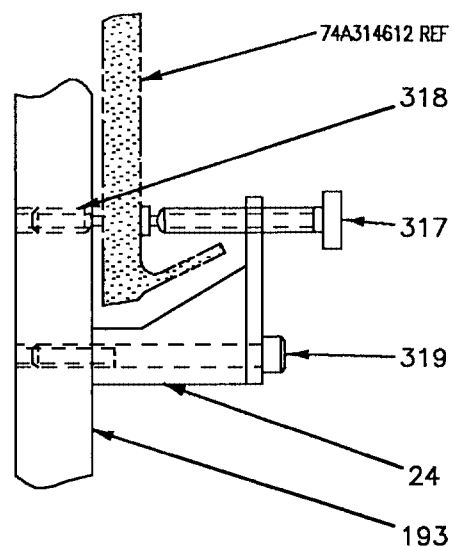
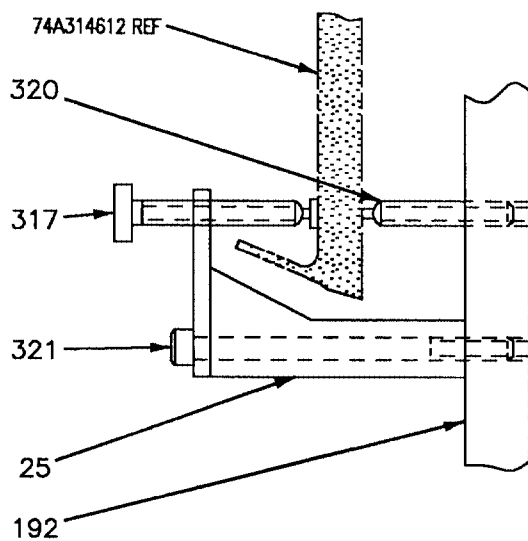


Figure 1. Four Support Fittings, Replacement (Sheet 5)

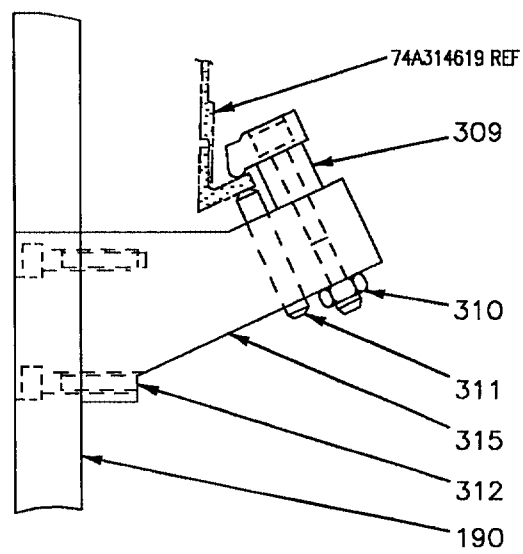
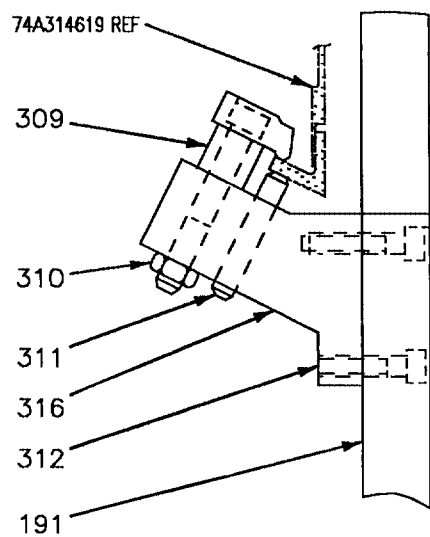


G
LOOKING AFT

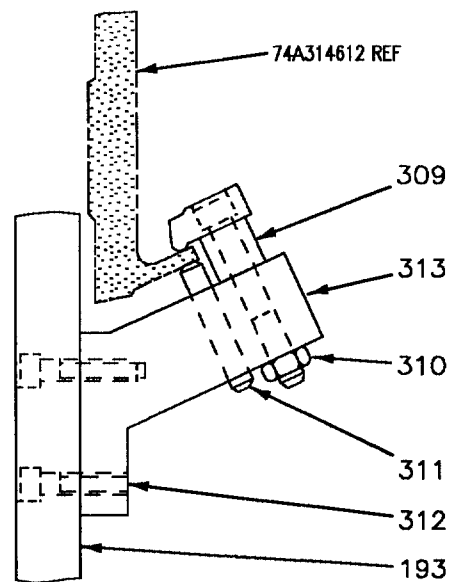
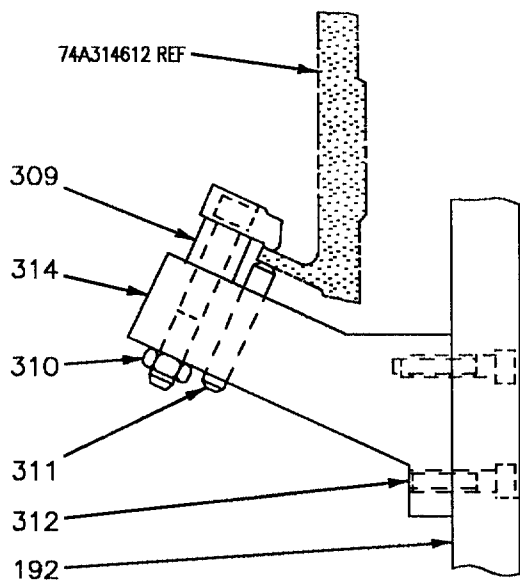


H
LOOKING FORWARD

Figure 1. Four Support Fittings, Replacement (Sheet 6)



J
LOOKING AFT



K
LOOKING FORWARD

Figure 1. Four Support Fittings, Replacement (Sheet 7)

Detail No.	Name	Function
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly F	Alignment Frame	Checks for correct X plane location in nose landing gear bay.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
19	Jacking Beam	Used to support the aircraft and secure Subassembly E using (detail 198, 199 and 200).
23	Support	Pins to Subassembly E with (detail 178) and to Subassembly F with (detail 178) supporting Subassembly F in nose landing gear bay.
24	Clamp	Used to hold 74A314612, right hand trunnion and (detail 193) in the correct position using (detail 319).
25	Clamp	Used to hold 74A314612, left hand trunnion and (detail 192) in the correct position using (detail 321).
26	Clamp	Used to hold 74A314235, left hand drag brace and (detail 190) in the correct position using (detail 324).
27	Clamp	Used to hold 74A314235, right hand drag brace and (detail 191) in the correct position using (detail 326).
176	L-Brackets	Used to check for correct X plane between 74A314208 plates.
177	Bushing	Used to check for correct X plane between (detail 177) and 74A314208 plate.
178	L-pins	Aligns support locator (detail 23) in nominal position.
190	Plate	Part of Subassembly E, used to align and for attaching components on left side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right side of drag brace area.
198	Screw	Attaches (detail 19) to Subassembly E with (detail 199 and 200).

Figure 1. Four Support Fittings, Replacement (Sheet 8)

Detail No.	Name	Function
199	Swivel Washers	Used on forward and aft side of (detail 19) with (detail 198 and 200) to attach (detail 19) to Subassembly E.
200	Nuts	Used on forward side of (detail 19) with (detail 198) to attach (detail 19) to Subassembly E.
240	Plate	Used to support and lift Subassembly E.
242	Adjusting Screws	Used to adjust (detail 291) into right hand trunnion fitting.
243	Adjusting Screws	Used with (detail 242) to adjust (detail 291) into right hand trunnion fitting.
244	Clamp	Used to Secure Subassembly E to (detail 20) and (detail 240).
245	Bolt	Used to secure (detail 244) to (detail 240).
248	Adjustment Screws	Used to adjust height of Subassembly E from (detail 240).
262	Bushing	Used to check for correct X plane location in left and right drag brace area.
263	Bushings	Used to check for correct X plane location in left and right trunnion area.
264	L-Pins	Used to secure (detail 192) and (detail 20) in drag brace area.
272	Holding Pin Bushing	Used to check for correct X plane location in left side trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
280	Caps	Used to take up the slack in Z plane in drag brace area. Secured with (detail 289 and 290).
289	Plug	Installed into (detail 192 and 193), secured to (detail 280) with (detail 290) in left and right side drag brace fittings.
290	Screw	Used to secure (detail 280) and take up the slack on left and right side trunnion and drag brace fittings.
291	Plug	Installed into (detail 190 and 191), secured to (detail 292) with (detail 290) in left and right side trunnion fittings.
292	Caps	Used to take up the slack in Z plane in right side trunnion area. Secured with (detail 290 and 291).

Figure 1. Four Support Fittings, Replacement (Sheet 9)

Detail No.	Name	Function
309	Clamp Assemblies	Used to secure 74A314612 and 74A314619 longeron.
310	Nuts	Used to tighten up (detail 309) in trunnion and drag brace area.
311	Jacks	Used to take up slack between (detail 309), 74A314612 and 74A314619 longeron.
312	Screws	Used to attach (detail 313, 314, 315 and 316) to Subassembly E.
313	Block	Attached to (detail 193) and used as support for (detail 309).
314	Block	Attached to (detail 192) and used as support for (detail 309).
315	Block	Attached to (detail 190) and used as support for (detail 309).
316	Block	Attached to (detail 191) and used as support for (detail 309).
317	Retaining Screws	Used to secure left and right hand longeron 74A314612 to Subassembly E.
318	Jack	Used to help secure right hand longeron 74A314612 to Subassembly E.
319	Cap Screw	Used to attach (detail 24) to (detail 193).
320	Jack	Used to help secure left hand longeron 74A314612 to Subassembly E.
321	Cap Screw	Used to attach (detail 25) to (detail 192).
322	Retaining Screws	Used to secure left and right hand trunnion support 74A314235 to Subassembly E.
323	Jack	Used to help secure left hand trunnion support 74A314235 to Subassembly E.
324	Cap Screw	Used to attach (detail 26) to (detail 190).
325	Jack	Used to help secure right hand trunnion support 74A314235 to Subassembly E.
326	Cap Screw	Used to attach (detail 27) to (detail 191).
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
550	Lift Platform	Used to lift Subassembly E up or down.

Figure 1. Four Support Fittings, Replacement (Sheet 10)

5. THREE SUPPORT FITTINGS, RE-PLACEMENT. Figure 2.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE274314235	Locating Fixture - N.L.G. Trunnion/Drag Brace Supports
RE374314235	Tool Set, N.L.G. Trunnion/Drag Brace Supports

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE I CLASS I	Cheesecloth
■ TT-I-735	Isopropyl Alcohol
MIL-S-83430, CLASS B-1/2	Sealing Compound

NOTE

Do only applicable steps for the fitting being replaced.

a. Remove fasteners attaching damaged nose landing gear trunnion support fitting to mating structure. See figure 8 for fasteners location.

b. Remove damaged nose landing gear trunnion support fitting.

c. Remove fasteners attaching damaged nose landing gear drag brace support fitting to mating structure. See figure 9 for fastener location.

d. Remove damaged nose landing gear drag brace support fitting.



Isopropyl Alcohol, TT-I-735

2

e. Clean all residual sealant from mating structure using plastic scraper and cheesecloth moistened with isopropyl alcohol.

NOTE

Manufactured replacement of trunnion support fitting 74A314235, leaving 0.090 extra on boss for facing. Bore hole to 2.00 +0.002 -0.000 diameter.

Manufactured replacement of drag brace support fitting 74A314612, leaving 0.090 extra on boss for facing. Bore hole to 2.308 +0.002 -0.000 diameter.

6. SETUP.

NOTE

Left and right procedures the same.

a. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace fittings. Turn LIFT knob to OFF position, figure 2, detail D.

b. Loosen bolt (detail 245), clamp (detail 244) four places that are positioned on plate (detail 240), figure 2, detail C.

c. Use adjusting screws (detail 242, 243 and 248) four places so as to engage plug in existing fitting holes, figure 2, detail C.

d. To take out up or down rotation of Subassembly E by locating C/B #1 or C/B #2 at Z81.0000.

e. Check inboard or outboard location of Subassembly E by locating C/B #1, #2 and #3 at X.9200 if plug is on left hand side of X-9200 if plug is on right hand side. Tighten bolt (detail 245) four places, figure 2, detail C.

f. On Subassembly L, turn LIFT knob to PARK position, figure 2, detail D.

g. Install proper fitting in plate (detail 190 or 191). See Table 1. for Trunnion Fitting Condition. Clamp in place with three screws (detail 278), figure 2, detail A.

h. Secure plate (detail 191) to trunnion support fitting, installing cap (detail 283) by attaching it with screw (detail 284) or install cap (detail 292), or attaching it with screw (detail 290), if bearing sleeve was removed because of damage, figure 2, detail A.

i. Install plug (detail 291) into 2.751 diameter hole in plate (detail 190) on left hand side, or plate (detail 191) on right hand side, securing them with cap (detail 292) by attaching it with screw (detail 290), figure 2, detail A.

j. Install proper fittings in plate (detail 192 or 193). See Table 1. for Drag Brace Fitting Condition. Clamp in place with three screws (detail 278), figure 2, detail B.

k. Secure plate (192 or 193) to drag brace support fitting, installing cap (detail 280) by attaching it with screw (detail 281), figure 2, detail B.

l. Place two L-pins (detail 264) in Nom position on plates (detail 192 and 193), figure 2, detail C.

m. Install bushing (detail 262) into plate (detail 192) and holding pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left hand drag brace support fitting, 74A314612, figure 2, detail B.

n. Install bushing (detail 262) into plate (detail 193) in right hand drag brace support fitting, 74A314612, figure 2, detail B.

o. Install bushing (detail 263) and holding pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left hand trunnion support fitting, 74A314235, figure 2, detail A.

p. Install bushing (detail 263) into plate (detail 191) in right hand trunnion support fitting, 74A314235, figure 2, detail A.

q. Attach bushing (detail 177) to Subassembly F, on the side opposite of plug (detail 291) that is installed in plate (detail 190 or 191), figure 1, detail E.

r. Install Subassembly F onto both sides of Subassembly E by pinning it with two L-pins (detail 178).

s. Swing Subassembly F up into the nose landing gear bay, then pin support (detail 23) by pinning it with two L-pins (detail 178) on both sides of Subassembly E.

t. Check for correct X plane location, equal feel within ± 0.030 in nose landing gear bay at 74A314208 plates by inserting 0.250 inch feeler gage between L-brackets (detail 176) and 74A314208 plate on right side and between bushing (detail 177) and 74A314208 plate on left side, figure 1, detail E.

u. Check for correct X plane location, equal feel within ± 0.030 at 74A314235 trunnion support fitting area, by inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support fitting, right hand side and between bushing (detail 272) and 74A314235 trunnion support fitting, on left side, figure 2, detail A.

v. Check for correct X plane location, equal feel within ± 0.030 at 74A314612 drag brace support fitting area, by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support fitting, right side and between bushing (detail 272) and 74A314612 drag brace support fitting, on left side, figure 2, detail B.

w. Secure Subassembly E to airframe.

(1) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 323), figure 1, detail G.

(2) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 325), figure 1, detail G.

(3) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 318), figure 1, detail H.

(4) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 320), figure 1, detail H.

(5) On left hand side of longeron 74A314619, attach block (detail 315) to plate (detail 190) by installing two screws (detail 312) four inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(6) On right hand side of longeron 74A314619, attach block (detail 316) to plate (detail 191) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(7) On right hand side of longeron 74A314612, attach block (detail 313) to plate (detail 193) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(8) On left hand side of longeron 74A314612 attach block (detail 314) to plate (detail 192) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(9) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 1, detail F.

x. Install plug (detail 289) into 2.751 diameter hole in plate (detail 192) on left hand side, or plate (detail 193) on right hand side, securing them with cap (detail 280) by attaching it with screw (detail 290), figure 2, detail B.

y. Check for correct X plane location, equal feel within ± 0.030 at 74A314235 trunnion support fitting, by inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support fitting, right hand side and between bushing (detail 272) and 74A314235 trunnion on support fitting, on left side, figure 2, detail A.

z. Check for correct X plane location, equal feel within ± 0.030 at 74A314612 drag brace support fitting area, by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support fitting, right side and between bushing (detail 272) and 74A314612 drag brace support fitting on the left side, figure 2, detail B.

aa. Install nose landing gear trunnion support fitting.



Use care when back drilling not to elongate holes in mating structure.

(1) Back drill holes in nose landing gear trunnion support fitting using existing holes in mating structure as a guide. See figure 8 for fastener location and hole diameter.

(2) Apply finish system as required to new nose landing gear trunnion support fitting and any other areas requiring finish system touch up (A1-F18AC-SRM-500, WP042 00).



Sealing Compound (Faying Sealant),
MIL-S-83430, Type B-1/2

8

(3) Faying surface seal interfacing surfaces on nose landing gear trunnion support fitting and mating structure. For sealant preparation and application (A1-F18AC-SRM-200, WP011 00).

(4) Wet install fasteners. For fastener sealing (A1-F18AC-SRM-200, WP011 00). See figure 8 for fastener location and hole diameter.

(5) For installing attaching hardware to skin (Door 25, 30 and 35) substructure. Refer to REPLACEMENT (A1-F18AC-SRM-222, WP032 00).

(6) Apply finish system as required (A1-F18AC-SRM-500, WP042 00).

ab. Install nose landing gear drag brace support fitting.



Use care when back drilling not to elongate holes in mating structure.

(1) Back drill holes in nose landing gear drag brace support fitting using existing holes in mating structure as a guide. See figure 9 for fastener location and hole diameter.

(2) Apply finish system as required to new nose landing gear drag brace support fitting and any other areas requiring finish system touch up (A1-F18AC-SRM-500, WP042 00).

(3) Faying surface seal interfacing surfaces on nose landing gear drag brace support fitting and mating structure. For sealant preparation and application (A1-F18AC-SRM-200, WP011 00).

ac. Wet install fasteners. For fastener sealing (A1-F18AC-SRM-200, WP011 00). See figure 9 for fastener location and hole diameter.

ad. For installing attaching hardware to skin (Door 25, 30 and 35) substructure. Refer to REPLACEMENT (A1-F18AC-SRM-222, WP032 00).

ae. Apply finish system as required (A1-F18AC-SRM-500, WP042 00).

af. Remove Subassembly E.

(1) On left or right side of drag brace support fitting 74A314612, remove screw (detail 281) and cap (detail 280) from plug, Table 1 and figure 2, detail B.

(2) On left or right side of trunnion support fitting 74A314235, remove screw (detail 284) and cap (detail 283) from plug, per Table 1 and figure 2, detail A.

(3) On left or right side of drag brace support fitting 74A314612, remove screw (detail 290) and cap (detail 292) from plug (detail 291). Remove plug (detail 291), figure 2, detail B.

(4) On left or right hand side of trunnion support fitting 74A314235, remove screw (detail 290) and cap (detail 292) from plug (detail 291). Remove plug (detail 291), figure 2, detail A.

(5) On left side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(6) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(7) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron

74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(8) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(9) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace support fitting 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 1, detail H.

(10) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace support fitting 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 1, detail H.

(11) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion support fitting 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 1, detail G.

(12) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion support fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 1, detail G.

(13) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 1, detail F.

(14) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 2, detail D.

(15) Do trunnion and/or drag brace support fitting reaming, this WP.

Table 1. REPLACING THREE SUPPORT FITTINGS

Fitting Condition	
Trunnion	Fittings
Located In Finished Bearing Sleeve	Detail -276 and 282
Located In Nominal Hole In Trunnion Fitting	Detail -276 and 301 or 387
Located In 1st Oversize Hole In Trunnion Fitting	Detail -276 and 302 or 388
Located In 2nd Oversize Hole In Trunnion Fitting	Detail -276 and 303 or 389
Located In 3rd Oversize Hole In Trunnion Fitting	Detail -276 and 393 or 395
Located In Replacement Fitting Trunnion For Reaming and Spotface	Detail -276 and 304 or 390
Located In Replacement Trunnion Fitting	Detail -291 and 292
Drag Brace	Fittings
Located In Finished Bearing Sleeve	Detail -276 and 279
Located In Nominal Hole In Drag Brace Fitting	Detail -276 and 293 or 383
Located In 1st Oversize Hole In Drag Brace Fitting	Detail -276 and 294 or 384
Located In 2nd Oversize Hole In Trunnion Fitting	Detail -276 and 295 or 385
Located In 3rd Oversize Hole In Trunnion Fitting	Detail -276 and 394 or 396
Located In Replacement Fitting Drag Brace For Reaming and Spotface	Detail -276 and 296 or 286
Located In Replacement Drag Brace Fitting	Detail -280 and 289

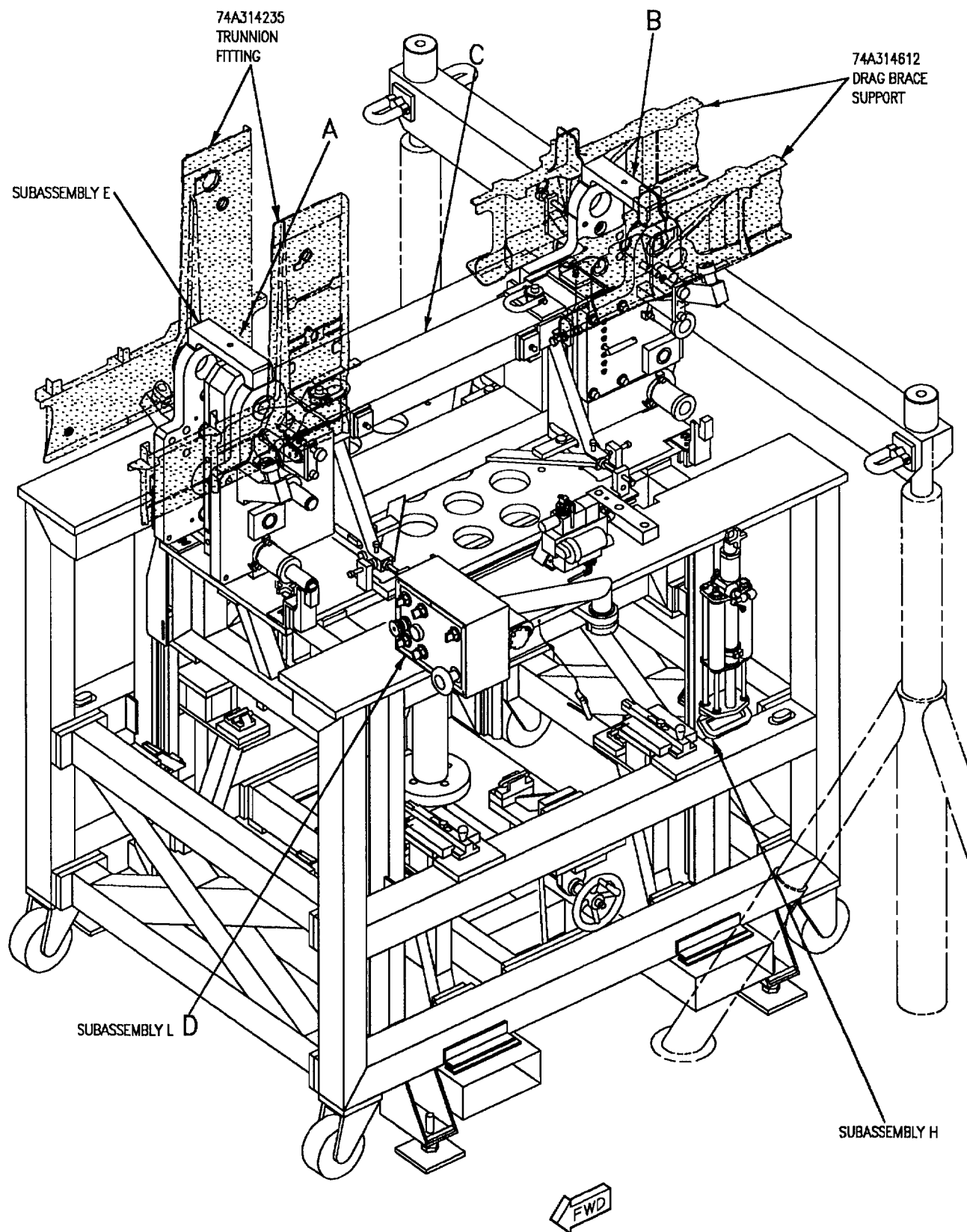


Figure 2. Three Support Fittings, Replacement (Sheet 1)

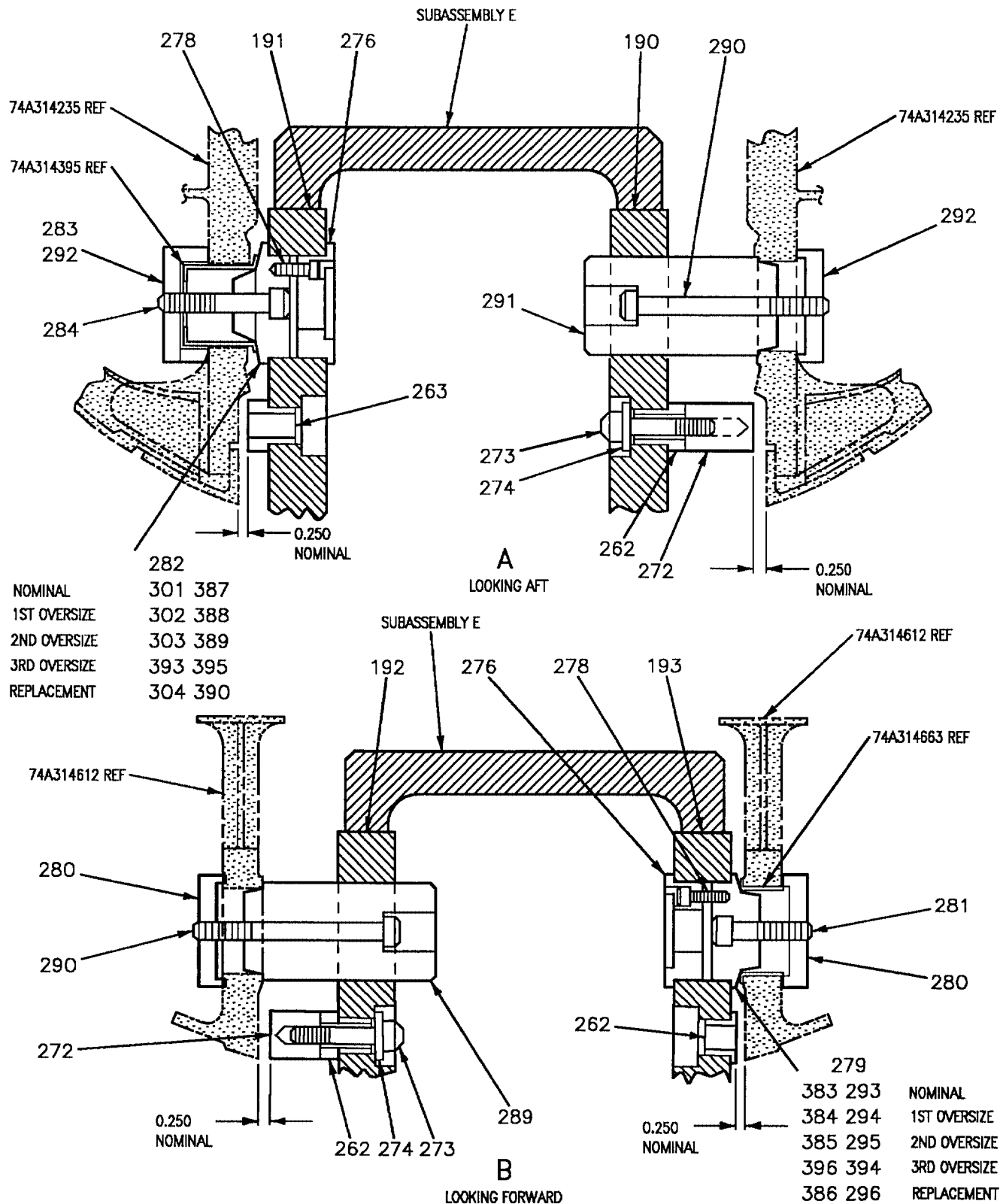
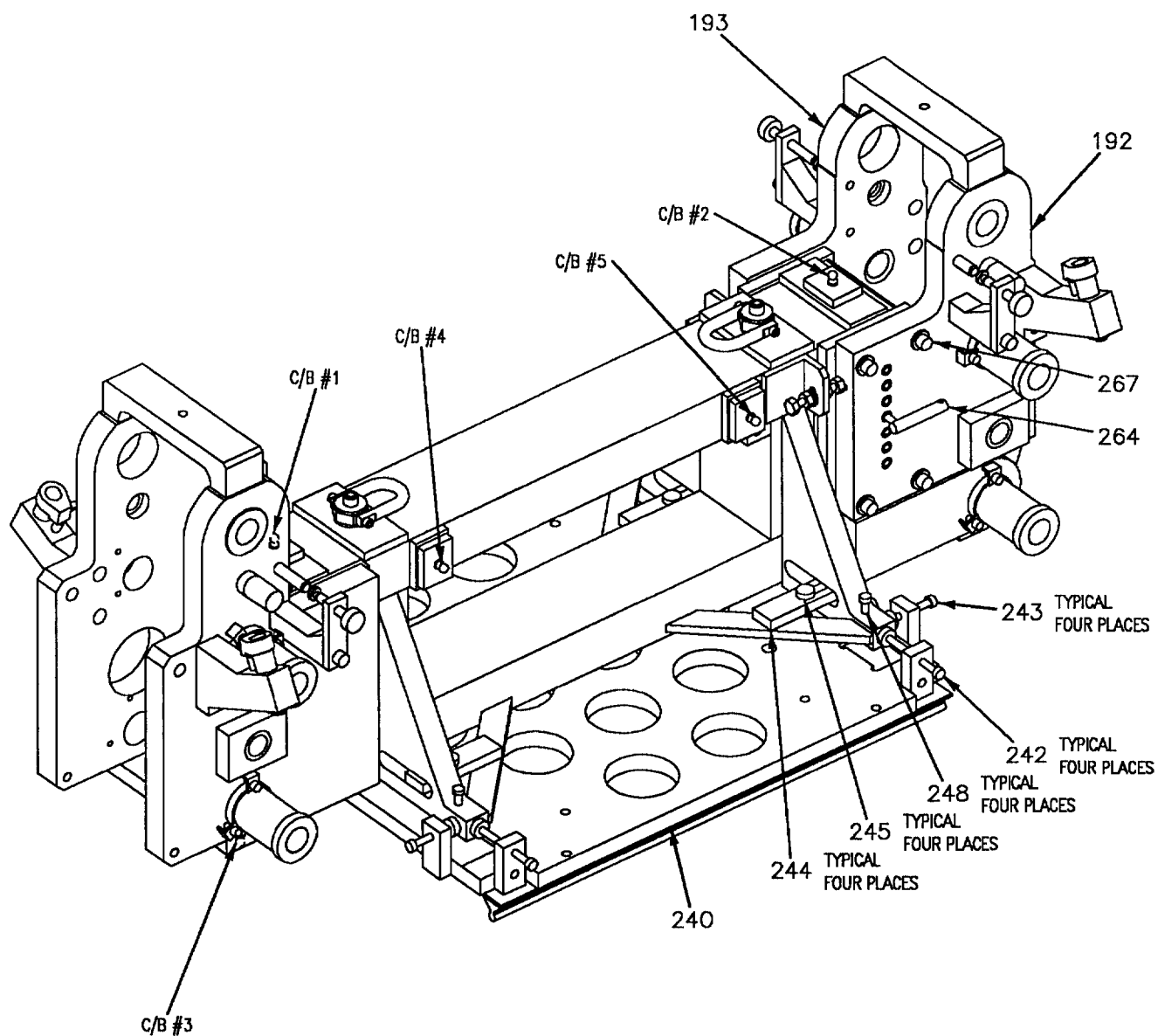


Figure 2. Three Support Fittings, Replacement (Sheet 2)



C

Figure 2. Three Support Fittings, Replacement (Sheet 3)

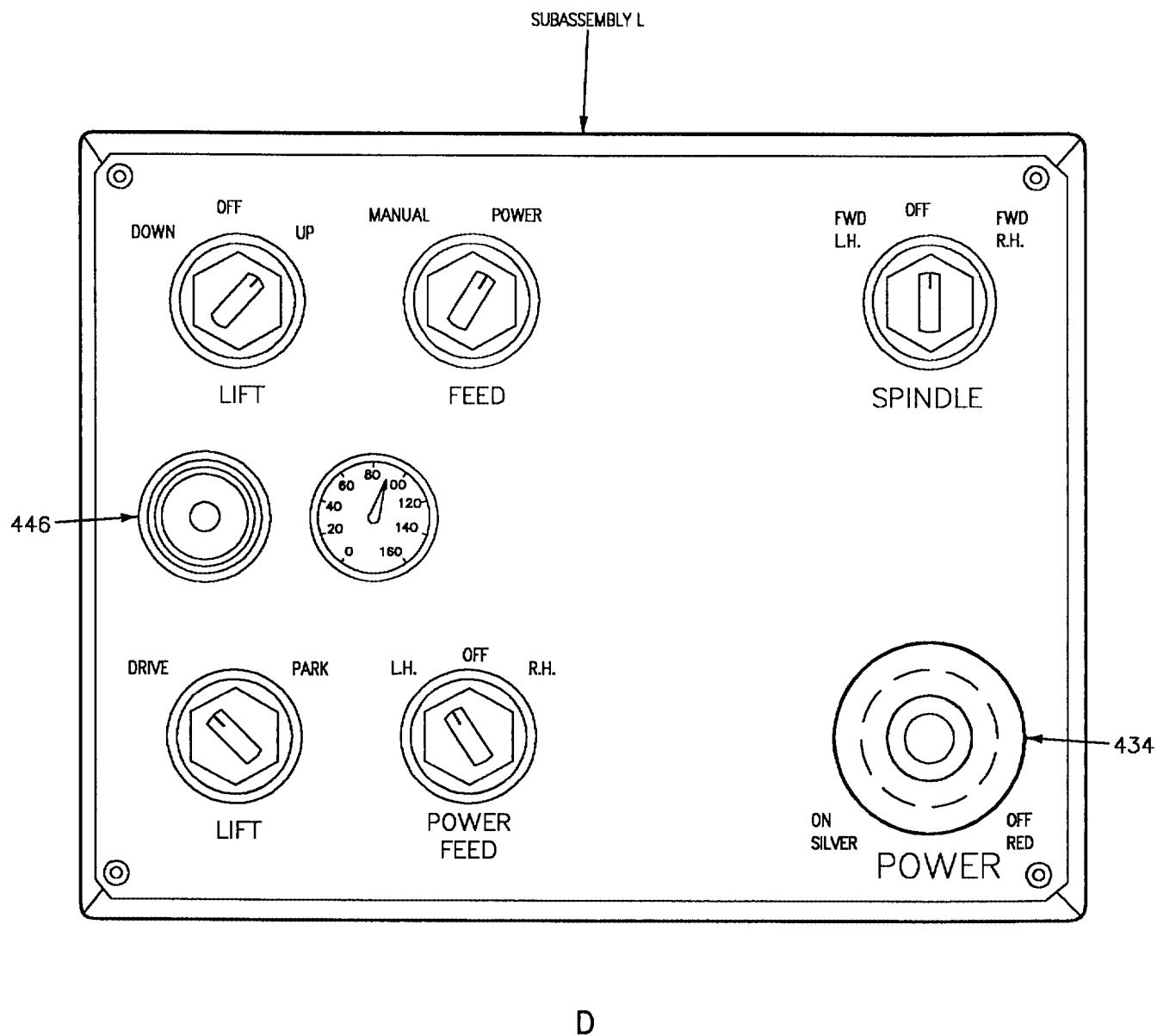


Figure 2. Three Support Fittings, Replacement (Sheet 4)

Detail No.	Name	Function
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly F	Alignment Frame	Checks for correct X plane location in nose landing gear bay.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
19	Jacking Beam	Used to support the aircraft and secure Subassembly E using (detail 198, 199 and 200).
23	Support	Pins to Subassembly E with (detail 178) and to Subassembly F with (detail 178) supporting Subassembly F in nose landing gear bay.
24	Clamp	Used to hold 74A314612, right hand trunnion and (detail 193) in the correct position using (detail 319).
25	Clamp	Used to hold 74A314612, left hand trunnion and (detail 192) in the correct position using (detail 321).
26	Clamp	Used to hold 74A314235, left hand drag brace and (detail 190) in the correct position using (detail 324).
27	Clamp	Used to hold 74A314235, right hand drag brace and (detail 191) in the correct position using (detail 326).
176	L-Brackets	Used to check for correct X plane between 74A314208 plates.
177	Bushing	Used to check for correct X plane between 74A314208 plate.
178	L-pins	Aligns support locator (detail 23) in nominal position.
190	Plate	Part of Subassembly E, used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.
198	Screw	Attach (detail 19) to Subassembly E with (detail 199 and 200).
240	Plate	Used to support and lift Subassembly E.

Figure 2. Three Support Fittings, Replacement (Sheet 5)

Detail No.	Name	Function
242	Adjustment Screws	Used to adjust (detail 291) into right hand trunnion fitting.
243	Adjustment Screws	Used with (detail 242) to adjust (detail 291) into right hand trunnion.
244	Clamp	Used to secure Subassembly E to (detail 20) and (detail 240).
245	Bolt	Used to secure (detail 244) to (detail 240).
248	Adjustment Screws	Used to adjust height of Subassembly E from (detail 240).
262	Bushing	Used to check for correct X plane location in left and right side drag brace area.
263	Bushings	Used to check for correct X plane location in left and right side trunnion area.
264	L-pins	Used to secure (detail 192) and (detail 20) in drag brace area.
267	Screws	Used to lock in place (detail 192) and (detail 20).
272	Holding Pin Bushing	Used to check for correct X plane location in left side trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
276	Plug	Installed into plate (detail 191 and 193) secured with screw (detail 278).
278	Screws	Used to secure plug (detail 276).
279	Sleeve Fitting	Installed into (detail 193), secured to (detail 276) with (detail 281).
280	Caps	Used to take up the slack in Z plane in drag brace area. Secured with (detail 289 and 290).
281	Screw	Used to secure cap (detail 280) and take up the slack on right hand drag brace fitting, 74A314612.
282	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
283	Cap	Used to take up slack in Z plane in trunnion support area. Secured with (detail 284).
284	Screw	Used to secure cap (detail 283) and take up slack on right hand trunnion fitting, 74A314235.
289	Plug	Installed into (detail 192) and secure by (detail 290) with (detail 280) in left hand drag brace area.

Figure 2. Three Support Fittings, Replacement (Sheet 6)

Detail No.	Name	Function
290	Screw	Used to secure cap (detail 280) and take up slack on left hand drag brace fitting, 74A314612.
291	Plug	Installed into (detail 190 and 192) secured to (detail 280 and 292) with (detail 290) in left hand trunnion and left hand drag brace area.
292	Caps	Used to take up slack in Z plane in trunnion area. Secured with (detail 284 and 290).
293	Sleeve Fitting	Installed into (detail 193) secured to (detail 276) with (detail 278).
294	Sleeve Fitting	Used in 1st oversize, installed into (detail 193) secured to (detail 276) with (detail 278).
295	Sleeve Fitting	Used in 2nd oversize, installed into (detail 193) secured to (detail 276) with (detail 278).
296	Sleeve Fitting	Used in replacement support fitting in drag brace 74A314612, for reaming and spotfacing.
301	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
302	Sleeve Fitting	Used in 1st oversize, installed into (detail 191), secured to (detail 276) with (detail 284).
303	Sleeve Fitting	Used in 2nd oversize, installed into (detail 191), secured to (detail 276) with (detail 284).
304	Sleeve Fitting	Used in replacement support fitting in trunnion 74A314395, for reaming and spotfacing.
309	Clamp Assemblies	Used to secure 74A314612 and 74A314619 longeron.
310	Nuts	Used to tighten up (detail 309) in trunnion and drag brace area.
311	Jacks	Used to take up slack between (detail 309), 74A314612 and 74A314619 longeron.
312	Screws	Used to attach (detail 313, 314, 315 and 316) to Subassembly E.
313	Block	Attached to (detail 193) and used as support for (detail 309).
314	Block	Attached to (detail 192) and used as support for (detail 309).
315	Block	Attached to (detail 190) and used as support for (detail 309).
316	Block	Attached to (detail 191) and used as support for (detail 309).
317	Retaining Screws	Used to secure left and right hand longeron 74A314612 to Subassembly E.

Figure 2. Three Support Fittings, Replacement (Sheet 7)

Detail No.	Name	Function
318	Jack	Used to help secure right hand longeron 74A314612 to Subassembly E.
319	Cap Screw	Used to attach (detail 24) to (detail 193).
320	Jack	Used to help secure left hand longeron 74A314612 to Subassembly E.
321	Cap Screw	Used to attach (detail 25) to (detail 192).
322	Retaining Screws	Used to secure left and right hand trunnion support 74A314235 to Subassembly E.
323	Jack	Used to help secure left hand trunnion support 74A314235 to Subassembly E.
324	Cap Screw	Used to attach (detail 26) to (detail 190).
325	Jack	Used to help secure right hand trunnion support 74A314235 to Subassembly E.
326	Cap Screw	Used to attach (detail 27) to (detail 191).
383	Sleeve Fitting	Used in places of (detail 293) if it will not install in drag brace fitting.
384	Sleeve Fitting	Used in 1st oversize, in place of (detail 294) if it will not install in drag brace fitting.
385	Sleeve Fitting	Used in 2nd oversize, in place of (detail 295) if it will not install in drag brace fitting.
386	Sleeve Fitting	Used in replacement support fitting in drag brace 74A314612, for reaming and spotfacing.
387	Sleeve Fitting	Used in place of (detail 301) if it will not install in trunnion fitting.
388	Sleeve Fitting	Used in 1st oversize, in place of (detail 302) if it will not install in trunnion fitting.
389	Sleeve Fitting	Used in 2nd oversize, in place of (detail 303) if it will not install in trunnion fitting.
390	Sleeve Fitting	Used in replacement support fitting in trunnion 74A314395, for reaming and spotfacing.
393	Sleeve Fitting	Used in 3rd oversize, installed into (detail 191) secured to (detail 276) with (detail 284).
394	Sleeve Fitting	Used in 3rd oversize, installed into (detail 193) secured to (detail 276) with (detail 278).

Figure 2. Three Support Fittings, Replacement (Sheet 8)

Detail No.	Name	Function
395	Sleeve Fitting	Used in 3rd oversize, in place of (detail 393) if it will not install in trunnion fitting.
396	Sleeve Fitting	Used in 3rd oversize, in place of (detail 394) if it will not install in drag brace fitting.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
550	Lift Platform	Used to lift Subassembly E up or down.

Figure 2. Three Support Fittings, Replacement (Sheet 9)

7. TWO SUPPORT FITTINGS, REPLACE- MENT Figure 3.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE274314235	Locating Fixture - N.L.G. Trunnion/ Drag Brace Supports
RE374314235	Tool Set, N.L.G. Trunnion/Drag Brace Supports

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS I	Cheesecloth
■ TT-I-735	Isopropyl Alcohol
MIL-S-83430, CLASS B-1/2	Sealing Compound

NOTE

Do only applicable steps for the fitting being replaced.

a. Remove fasteners attaching damaged nose landing gear trunnion support fitting to mating structure. See figure 8 for fasteners location.

b. Remove damaged nose landing gear trunnion support fitting.

c. Remove fasteners attaching damaged nose landing gear drag brace support fitting to mating structure. See figure 9 for fastener location.

d. Remove damaged nose landing gear drag brace support fitting.



Isopropyl Alcohol, TT-I-735

2

e. Clean all residual sealant from mating structure using plastic scraper and cheesecloth moistened with isopropyl alcohol.

NOTE

Manufactured replacement of drag brace support fitting 74A314235, leaving 0.090 extra on boss for facing. Bore hole to 2.00 +0.002 -0.000 diameter.

Manufactured replacement of drag brace support fitting 74A314612, leaving 0.090 extra on boss for facing. Bore hole to 2.308 +0.002 -0.000 diameter.

8. SETUP.

NOTE

Left and right procedures the same.

a. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace fittings. Turn LIFT knob to OFF position, figure 3, detail M.

b. Loosen bolt (detail 245), clamp (detail 244) four places that are positioned on plate (detail 240), figure 3, detail L.

c. Use adjusting screws (detail 242, 243 and 248) four places so as to engage plug in existing fitting holes, figure 3, detail L.

d. To take out up or down rotation of Subassembly E by locating C/B #1 or C/B #2 at Z81.0000, figure 3, detail L.

e. Check inboard or outboard location of Subassembly E by locating C/B #1, #2 and #3 at X.9200, if plug is on left hand side, X-.9200 if plug is on right hand side. Tighten bolt (detail 245) four places, figure 3, detail L.

f. Steps 1 through 4 applies only if both right hand fittings are not being replaced.

(1) Install proper plug and nuts onto plate (detail 190). See Table 2, for Trunnion Fitting Condition, figure 3, detail A.

(2) Secure plate (detail 190) to trunnion support fitting, installing cap (detail 283) by attaching it with screw (detail 287), or attach cap (detail 292), if bearing sleeve was removed because of damage, figure 3, detail A.

(3) Install proper plug and nuts onto plate (detail 192). See Table 2, for Drag Brace Condition, figure 3, detail B.

(4) Secure plate (detail 192) to drag brace support fitting, installing cap (detail 280) by attaching it with screw (detail 287), figure 3, detail B.

g. Steps 1 through 4 applies only if both right hand fittings are not being replaced.

(1) Install proper fittings into plate (detail 191) with three screws (detail 278). See Table 3, for Trunnion Fitting Condition, figure 3, detail C.

(2) Secure plate (detail 191) to trunnion support fitting, installing cap (detail 283) by attaching it with screw (detail 284), figure 3, detail C.

(3) Install proper fittings into plate (detail 193) with three screws (detail 278). See Table 3, for Drag Brace Fitting Condition, figure 3, detail D.

(4) Secure plate (detail 193) to drag brace support fitting, installing cap (detail 280) by attaching it with screw (detail 281), figure 3, detail D.

h. Steps 1 through 4 applies only if left and right hand trunnion support fittings are not being replaced.

(1) Install proper fittings into plate (detail 191) with three screws (detail 278). See Table 3, for Trunnion Fitting Condition, figure 3, detail E.

(2) Secure plate (detail 191) to trunnion support fitting, installing cap (detail 292) by attaching it with screw (detail 284), figure 3, detail E.

(3) Install proper plug into plate (detail 190) and secure it to trunnion support fitting. See Table 2, for Trunnion Fitting Condition, figure 3, detail E.

(4) Secure plate (detail 190) to trunnion support fitting, installing cap (detail 283) by attaching it with screw (detail 287), figure 3, detail E.

i. Steps 1 through 4 applies only if left and right hand drag brace support fittings are not being replaced.

(1) Install proper fittings into plate (detail 193) with three screws (detail 278). See Table 5, for Drag Brace Fitting Condition, figure 3, detail H.

(2) Secure plate (detail 193) to drag brace support fitting, installing cap (detail 280) by attaching it with screw (detail 281), figure 3, detail H.

(3) Install proper plug and nuts into plate (detail 192). See Table 2, for Drag Brace Fitting Condition, figure 3, detail H.

(4) Secure plate (detail 192) to drag brace support fitting, installing cap (detail 280) by attaching it with screw (detail 287), figure 3, detail H.

j. Steps 1 through 4 applies only if one trunnion and one drag brace support fitting are not being replaced, perform operation are existing trunnion fitting side.

(1) Install proper fittings into plate (detail 191) with three screws (detail 278). See Table 6, for Trunnion Fitting Condition, figure 3, detail J.

(2) Secure plate (detail 191) to trunnion support fitting, installing cap (detail 283) by attaching it with screw (detail 284), figure 3, detail J.

(3) Install proper fittings into plate (detail 193) with three screws (detail 278). See Table 6, for Drag Brace Fitting Condition, figure 3, detail K.

(4) Secure plate (detail 193) to drag brace support fitting, installing cap (detail 280) by attaching it with screw (detail 281), figure 3, detail K.

k. Place two L-pins (detail 264) in Nom position on plates (detail 192 and 193), figure 3, detail L.

l. If center to center distance is off in drag brace support fitting, 74A314612, pull L-pin (detail 264) on each side of Subassembly E, figure 3, detail L.

m. Loosen center distance by turning screw (detail 267) on each side of Subassembly E by tightening or loosening until sleeve fitting, figure 3, detail L, see Table 2, for Drag Brace Fitting Condition, can be engaged into bearing sleeve, 74A314663 or drag brace support fitting 74A314612, figure 3, detail H.

NOTE

Make sure that spacing is within ± 0.030 . If not, engineering disposition has to be obtained for out of dimension repair.

n. Install L-pins (detail 264) into adjustment hole from -0.030 to +0.030 on each side of Subassembly E based upon if forward or aft adjustment was made, figure 3, detail L.

o. Torque screws (detail 267) four places on each side of Subassembly E to 60 ft lbs and clamp welded assembly (detail 20) with clamp (detail 244) with bolt (detail 245) four places, figure 3, detail L.

p. Install bushing (detail 262) into plate (detail 192) and holding pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left hand drag brace support fitting area, figure 3, detail B.

q. Install bushing (detail 262) into plate (detail 193), figure 3, detail B.

r. Install bushing (detail 263) and holding pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left hand trunnion support fitting area, figure 3, detail A.

s. Install bushing (detail 263) into plate (detail 191), figure 3, detail A.

t. Install Subassembly F onto both sides of Subassembly E by pinning it with two L-pins (detail 178), figure 1 sheet 1.

u. Swing Subassembly F up into the nose landing gear bay, then pin support (detail 23) with two L-pins (detail 178) on both sides of Subassembly E.

v. Check for correct X plane location, equal feel within ± 0.030 in nose landing gear bay at 74A314208 plates by inserting 0.250 inch feeler gage between L-brackets (detail 176) and 74A314208 plate on right side and between bushing (detail 177) and 74A314208 plate on left side, figure 1, detail E.

w. Check for correct X plane location, equal feel within ± 0.030 at 74A314235 trunnion support fitting area, by inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support fitting, right hand side and between holding pin bushing (detail 272) and 74A314235 trunnion support fitting, on left side, figure 3, detail A.

x. If alignment check fails to meet requirements at 74A314235 trunnion support fitting, shim as required between plate (detail 191) and sleeve fitting, see Table 3, for Trunnion Fitting Condition, figure 3, detail C.

y. Check for correct X plane location, equal feel within ± 0.030 at 74A314612 drag brace support fitting area, by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support fitting right side and between bushing (detail 272)

and 74A314612 drag brace support fitting, on the left side, figure 3, detail B.

z. If alignment check fails to meet requirements of 74A314612 drag brace support fitting, adjust plug, see Table 2, for Drag Brace Condition by loosening or tightening nuts (detail 285) and/or shimming as required between plate (detail 193) and sleeve fitting, see Table 3, for Drag Brace Condition, figure 3, detail B.

aa. Secure Subassembly E to airframe.

(1) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 323), figure 1, detail G.

(2) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 325), figure 1, detail G.

(3) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 318), figure 1, detail H.

(4) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace support fitting 74A314612 between retaining screw (detail 317) and jack (detail 320), figure 1, detail H.

(5) On left hand side of longeron 74A314619, attach block (detail 315) to plate (detail 190) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(6) On right hand side of longeron 74A314619, attach block (detail 316) to plate (detail 191) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(7) On right hand side of longeron 74A314612, attach block (detail 313) to plate (detail 193) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(8) On left hand side of longeron 74A314612 attach block (detail 314) to plate (detail 192) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(9) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 1, detail F.

ab. Install nose landing gear trunnion support fitting.



Use care when back drilling not to elongate holes in mating structure.

(1) Back drill holes in nose landing gear trunnion support fitting using existing holes in mating structure as a guide. See figure 8 for fastener location and hole diameter.

(2) Apply finish system as required to new nose landing gear trunnion support fitting and any other areas requiring finish system touch up (A1-F18AC-SRM-500, WP042 00).



Sealing Compound (Faying Sealant),
MIL-S-83430, Type B-1/2

8

(3) Faying surface seal interfacing surfaces on nose landing gear trunnion support fitting and mating structure. For sealant preparation and application (A1-F18AC-SRM-200, WP011 00).

(4) Wet install fasteners. For fastener sealing (A1-F18AC-SRM-200, WP011 00). See figure 8 for fastener location and hole diameter.

ac. For installing attaching hardware to skin (Door 25, 30 and 35) substructure. Refer to REPLACEMENT (A1-F18AC-SRM-222, WP032 00).

ad. Apply finish system as required (A1-F18AC-SRM-500, WP042 00).

ae. Install nose landing gear drag brace support fitting.



Use care when back drilling not to elongate holes in mating structure.

(1) Back drill holes in nose landing gear trunnion support fitting using existing holes in mating structure as a guide. See figure 9 for fastener location and hole diameter.

(2) Apply finish system as required to new nose landing gear trunnion support fitting and any other areas requiring finish system touch up (A1-F18AC-SRM-500, WP042 00).

(3) Faying surface seal interfacing surfaces on nose landing gear drag brace support fitting and mating structure. For sealant preparation and application (A1-F18AC-SRM-200, WP011 00).

(4) Wet install fasteners. For fastener sealing (A1-F18AC-SRM-200, WP011 00). See figure 9 for fastener location and hole diameter.

af. For installing attaching hardware to skin (Door 25, 30 and 35) substructure. Refer to REPLACEMENT (A1-F18AC-SRM-222, WP032 00).

ag. Apply finish system as required (A1-F18AC-SRM-500, WP042 00).

ah. Remove Subassembly E.

ai. Steps 1 through 4 applies only if both left hand fittings have not be replaced.

(1) On right side of drag brace support fitting 74A314612, remove screw (detail 290) and cap (detail 280) from plug (detail 289). Remove plug (detail 289) from plate (detail 193), figure 3, detail B.

(2) On left side of drag brace support fitting 74A314612, remove screw (detail 287) and cap (detail 280) from plug, see Table 2, for Drag Brace Condition. Remove two nuts (detail 285) and plug, see Table 2, for Drag Brace Condition, figure 3, detail B.

(3) On left side of trunnion support fitting 74A314235, remove screw (detail 287) and cap (detail 283 or 292) from plug, see Table 2, for Trunnion Fitting Condition. Remove two nuts (detail 285) and plug, see Table 2, for Trunnion Fitting Condition, figure 3, detail A.

(4) On right side of trunnion support fitting 74A314235, remove screw (detail 290) and cap (detail 292) from plug (detail 291). Remove plug (detail 291) from plate (detail 191), figure 3, detail A.

aj. Steps 1 through 4 applies only if both right hand fittings have not been replaced.

(1) On left side of drag brace support fitting 74A314612, remove screw (detail 287) and cap (detail 280) from plug, see Table 2, for Drag Brace Fitting Condition. Remove two nuts (detail 285) and plug, see Table 2, for Drag Brace Fitting Condition, from plate (detail 192), figure 3, detail B.

(2) On right side of drag brace support fitting 74A314612, remove screw (detail 290) and cap (detail 280) from fitting, see Table 3, for Drag Brace Fitting Condition, figure 3, detail B.

(3) On left side of trunnion support fitting 74A314235, remove screw (detail 290) and cap (detail 292) from plug (detail 291). Remove plug (detail 291) from plate (detail 190), figure 3, detail C.

(4) On right side of trunnion support fitting 74A314235, remove screw (detail 284) and cap (detail 283) from fitting, see Table 3, for Trunnion Fitting Condition, figure 3, detail C.

ak. Steps 1 through 4 applies only if left and right hand trunnion support fittings have not been replaced.

(1) On left side of drag brace support fitting 74A314612, remove screw (detail 290) and cap (detail 280) from plug (detail 289). Remove plug (detail 289) from plate (detail 192), figure 3, detail F.

(2) On right side of drag brace support fitting 74A314612, remove screw (detail 290) and cap (detail 280) from plug (detail 289). Remove plug (detail 289) from plate (detail 193), figure 3, detail F.

(3) On left side of trunnion support fitting 74A314235, remove screw (detail 287) and cap (detail 283) from plug, see Table 2, for Trunnion Fitting Condition. Remove two nuts (detail 285) and plug, see Table 2, for Trunnion Fitting Condition, figure 3, detail E.

(4) On right side of trunnion support fitting 74A314235, remove screw (detail 284) and cap (detail 292) from fitting, see Table 2, for Trunnion Fitting Condition, figure 3, detail E.

al. Steps 1 through 4 applies only if left and right hand drag brace support fitting have not been replaced.

(1) On left side of drag brace support fitting 74A314612, remove screw (detail 287) and cap (detail 280)

from plug, see Table 5, for Drag Brace Fitting Condition. Remove two nuts (detail 285) and plug, see Table 5, for Drag Brace Fitting Condition, figure 3, detail H.

(2) On right side of drag brace support fitting 74A314612, remove screw (detail 281) and cap (detail 280) from fitting, see Table 5, for Drag Brace Fitting Condition, figure 3, detail H.

(3) On left hand trunnion support fitting 74A314235, remove screw (detail 290) and cap (detail 292) from plug (detail 291). Remove plug (detail 291) from plate (detail 191), figure 3, detail G.

(4) On right hand trunnion support fitting 74A314235, remove screw (detail 290) and cap (detail 292) from plug (detail 291). Remove plug (detail 291) from plate (detail 190), figure 3, detail G.

am. Steps 1 through 4 applies only if one trunnion and one drag brace support fitting have not been replaced.

(1) On left side of drag brace support fitting 74A314612, remove screw (detail 290) and cap (detail 280) from plug (detail 289). Remove plug (detail 289) from plate (detail 192), figure 3, detail K.

(2) On right side of drag brace support fitting 74A314612, remove screw (detail 281) and cap (detail 280) from fitting, see Table 6, for Drag Brace Fitting Condition, figure 3, detail K.

(3) On left hand trunnion support fitting 74A314235, remove screw (detail 290) and cap (detail 292) from plug (detail 291). Remove plug (detail 291) from plate (detail 190), figure 3, detail J.

(4) On right hand trunnion support fitting 74A314235, remove screw (detail 284) and cap (detail 283) from fitting, see Table 6, for Trunnion Fitting Condition, figure 3, detail J.

(5) On left side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(6) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(7) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron

74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(8) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(9) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace fitting 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 1, detail H.

(10) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace fitting 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 1, detail H.

(11) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323)

from left hand trunnion fitting 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 1, detail G.

(12) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 1, detail G.

(13) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 1, detail F.

(14) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 3, detail M.

(15) Do trunnion and/or drag brace support fitting reaming, this WP.

Table 2. Replacing Two Support Fittings

Fitting Condition	
Trunnion	Plug and Nuts
Located In Finished Left Hand Bearing Sleeve	Detail -288 and (2) of 285
Located In Nominal Hole In Left Hand Trunnion Fitting	Detail -305 and (2) of 285
Located In 1st Oversize Hole in Left Hand Trunnion Fitting	Detail -306 and (2) of 285
Located In 2nd Oversize Hole in Left Hand Trunnion Fitting	Detail -307 and (2) of 285
Located In 3rd Oversize Hole in Left Hand Trunnion Fitting	Detail -391 and (2) of 285
Located In Left Hand Replacement Fitting Trunnion For Reaming and Spotface	Detail -308 and (2) of 285
Drag Brace	Plug and Nuts
Located In Finished Left Hand Bearing Sleeve	Detail -286 and (2) of 285
Located In Nominal Hole In Left Hand Drag Brace Fitting	Detail -297 and (2) of 285
Located In 1st Oversize Hole In Left Hand Drag Brace Fitting	Detail -298 and (2) of 285
Located In 2nd Oversize Hole In Left Hand Drag Brace Fitting	Detail -299 and (2) of 285
Located In 3rd Oversize Hole In Left Hand Drag Brace Fitting	Detail -395 and (2) of 285
Located In Right Hand Replacement Fitting Drag Brace For Reaming and Spotface	Detail -300 and (2) of 285

Table 3. Replacing Two Support Fittings

Fitting Condition	
Trunnion	Plug and Nuts
Located In Finished Right Hand Bearing Sleeve	Detail -276 and 282
Located In Nominal Hole In Right Hand Trunnion Fitting	Detail -276 and 301 or 387
Located In 1st Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 302 or 388
Located In 2nd Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 303 or 389
Located In 3rd Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 393 or 395
Located In Right Hand Replacement Fitting Trunnion For Reaming and Spotface	Detail -276 and 304 or 390
Drag Brace	Fittings
Located In Finished Right Hand Bearing Sleeve	Detail -276 and 279
Located In Nominal Hole In Right Hand Drag Brace Fitting	Detail -276 and 293 or 383
Located In 1st Oversize Hole In Right Hand Drag Brace Fitting	Detail -276 and 294 or 384
Located In 2nd Oversize Hole In Right Hand Drag Brace Fitting	Detail -276 and 295 or 385
Located In 3rd Oversize Hole In Right Hand Drag Brace Fitting	Detail -276 and 394 or 396
Located In Right Hand Replacement Fitting Drag Brace For Reaming and Spotface	Detail -276 and 296 or 386

Table 4. Replacing Two Support Fittings

Fitting Condition	
Trunnion	Plug and Nuts
Located In Finished Right Hand Bearing Sleeve	Detail -276 and 282
Located In Nominal Hole In Right Hand Trunnion Fitting	Detail -276 and 301 or 387
Located In 1st Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 302 or 388
Located In 2nd Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 303 or 389
Located In 3rd Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 393 or 395
Located In Right Hand Replacement Fitting Trunnion For Reaming and Spotface	Detail -276 and 304 or 390

Table 5. Replacing Two Support Fittings

Fitting Condition	
Drag Brace	Fittings
Located In Finished Right Hand Bearing Sleeve	Detail -276 and 279
Located In Nominal Hole In Right Hand Drag Brace Fitting	Detail -276 and 293 or 383
Located In 1st Oversize Hole In Right Hand Drag Brace Fitting	Detail -276 and 294 or 384
Located In 2nd Oversize Hole In Right Hand Drag Brace Fitting	Detail -276 and 295 or 385
Located In 3rd Oversize Hole In Right Hand Drag Brace Fitting	Detail -276 and 394 or 396
Located In Right Hand Replacement Fitting Drag Brace For Reaming and Spotface	Detail -276 and 296 or 386

Table 6. Replacing Two Support Fittings

Fitting Condition	
Trunnion	Plug and Nuts
Located In Finished Right Hand Bearing Sleeve	Detail -276 and 282
Located In Nominal Hole In Right Hand Trunnion Fitting	Detail -276 and 301 or 387
Located In 1st Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 302 or 388
Located In 2nd Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 303 or 389
Located In 3rd Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 393 or 395
Located In Right Hand Replacement Fitting Trunnion For Reaming and Spotface	Detail -276 and 304 or 390
Drag Brace	Fitting
Located In Finished Right Hand Bearing Sleeve	Detail -276 and 279
Located In Nominal Hole In Right Hand Drag Brace Fitting	Detail -276 and 293 or 383
Located In 1st Oversize Hole In Right Hand Drag Brace Fitting	Detail -276 and 294 or 384
Located In 2nd Oversize Hole In Right Hand Drag Brace Fitting	Detail -276 and 295 or 385
Located In 3rd Oversize Hole In Right Hand Drag Brace Fitting	Detail -276 and 394 or 396
Located In Right Hand Replacement Fitting Drag Brace For Reaming and Spotface	Detail -276 and 296 or 386

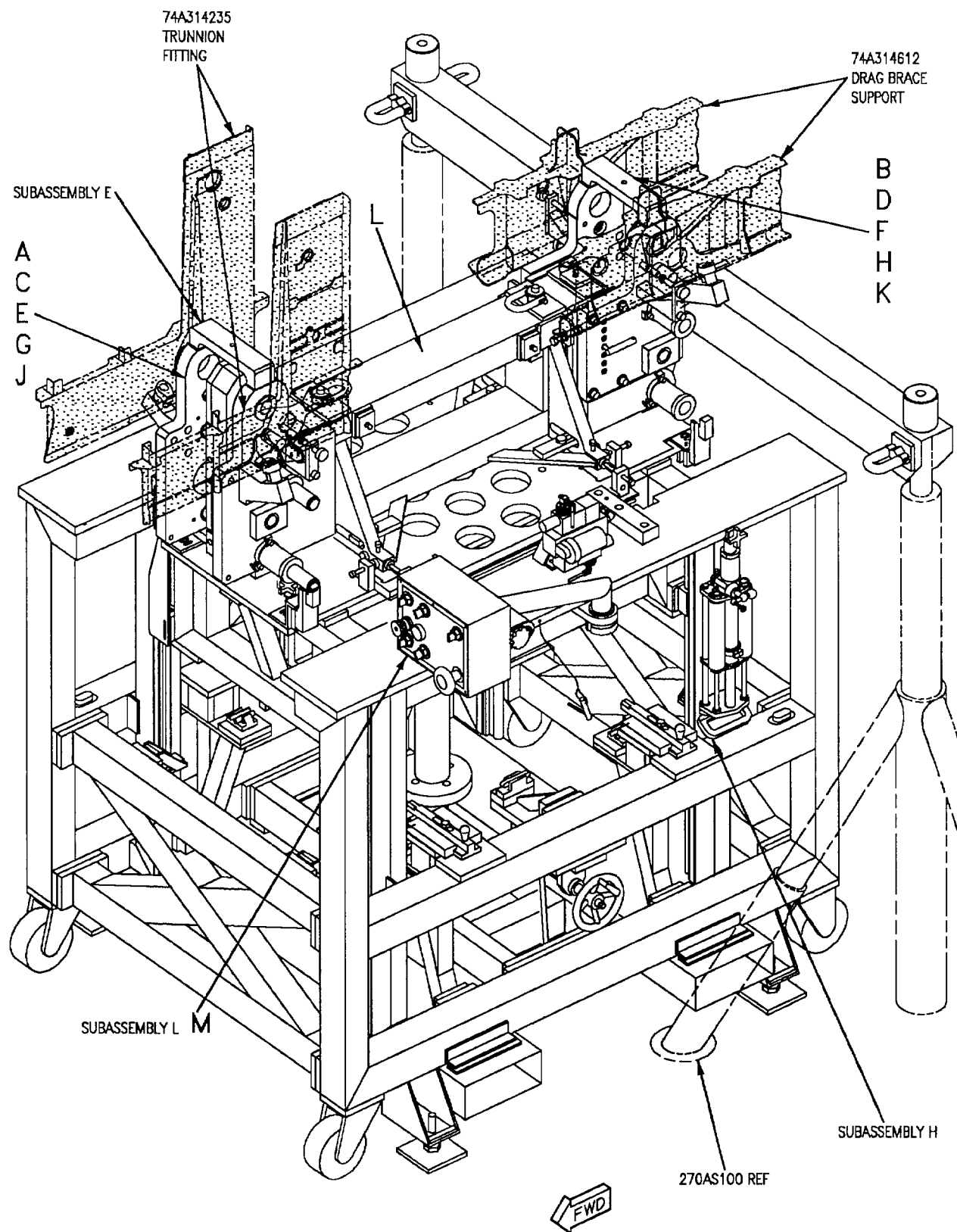


Figure 3. Two Support Fittings, Replacement (Sheet 1)

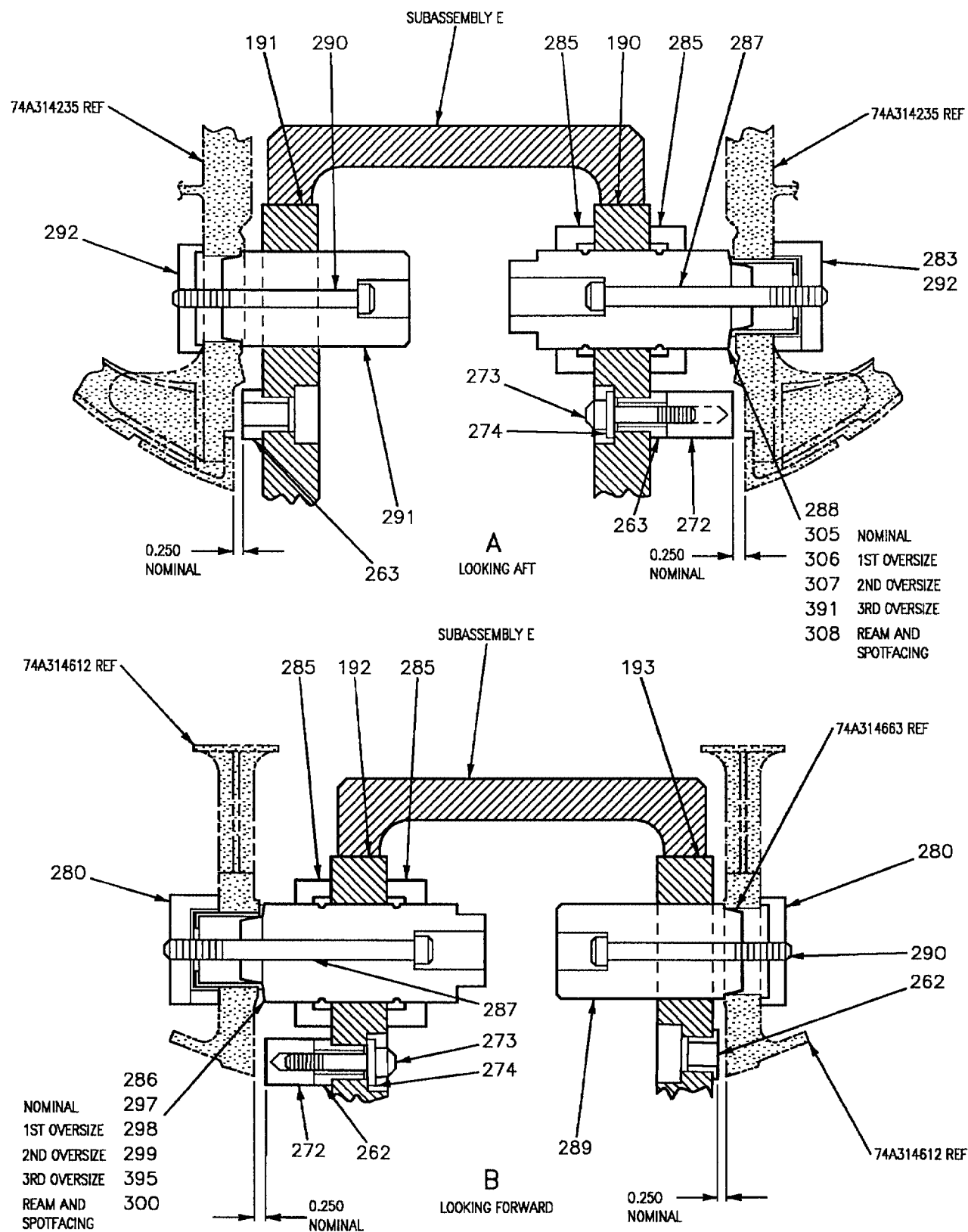


Figure 3. Two Support Fittings, Replacement (Sheet 2)

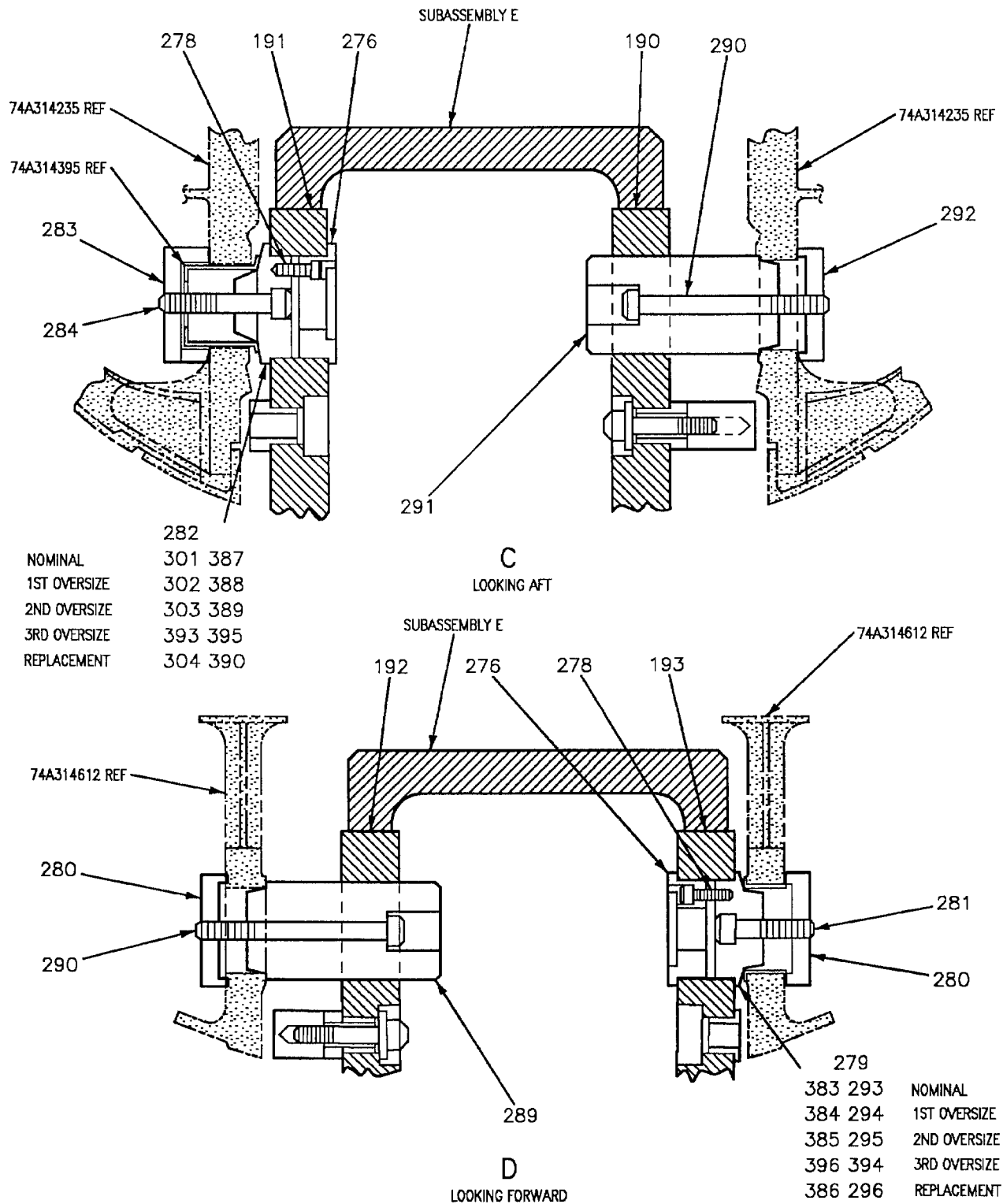
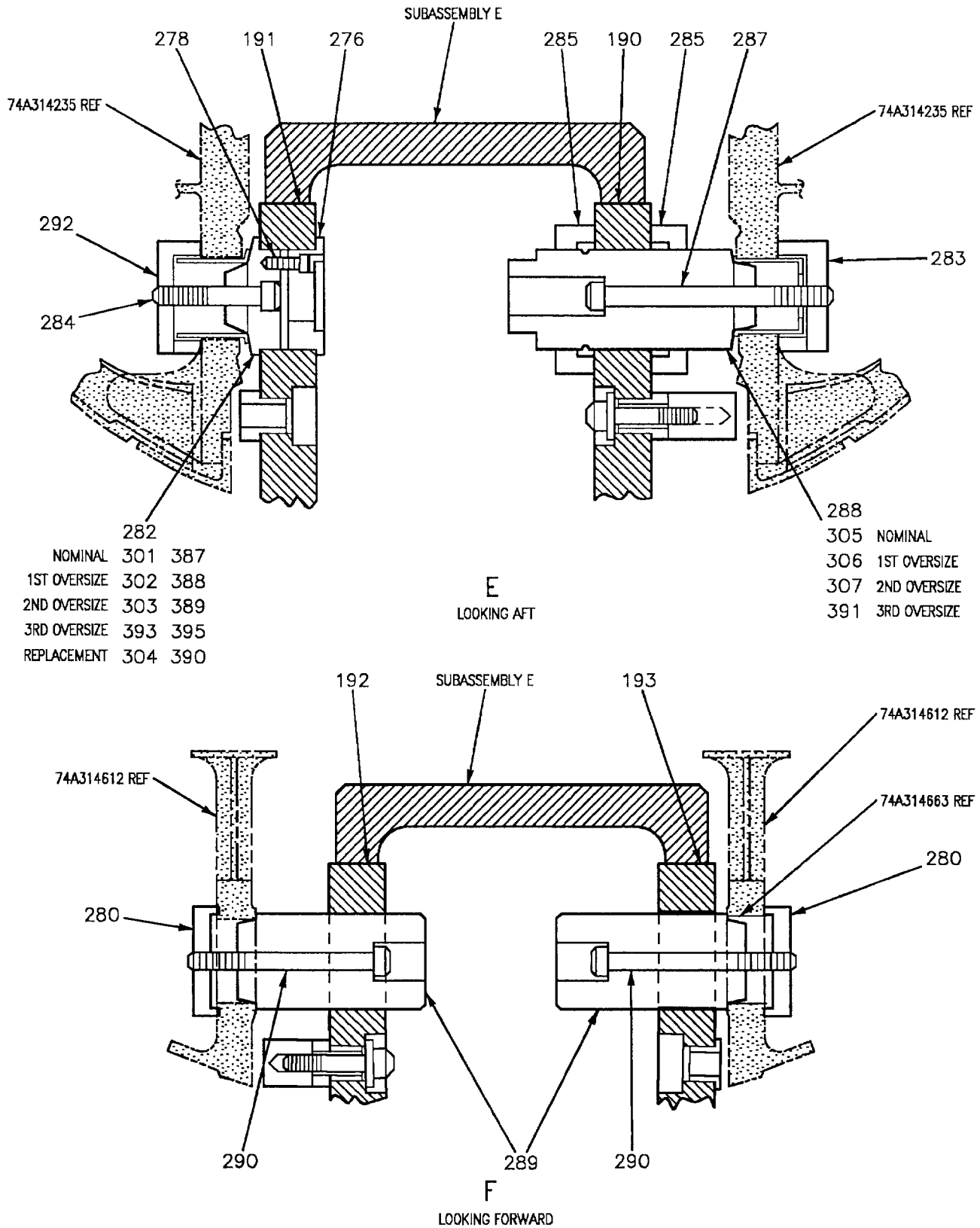


Figure 3. Two Support Fittings, Replacement (Sheet 3)



18AC-SRM-221-(136-4)02-CAT1

Figure 3. Two Support Fittings, Replacement (Sheet 4)

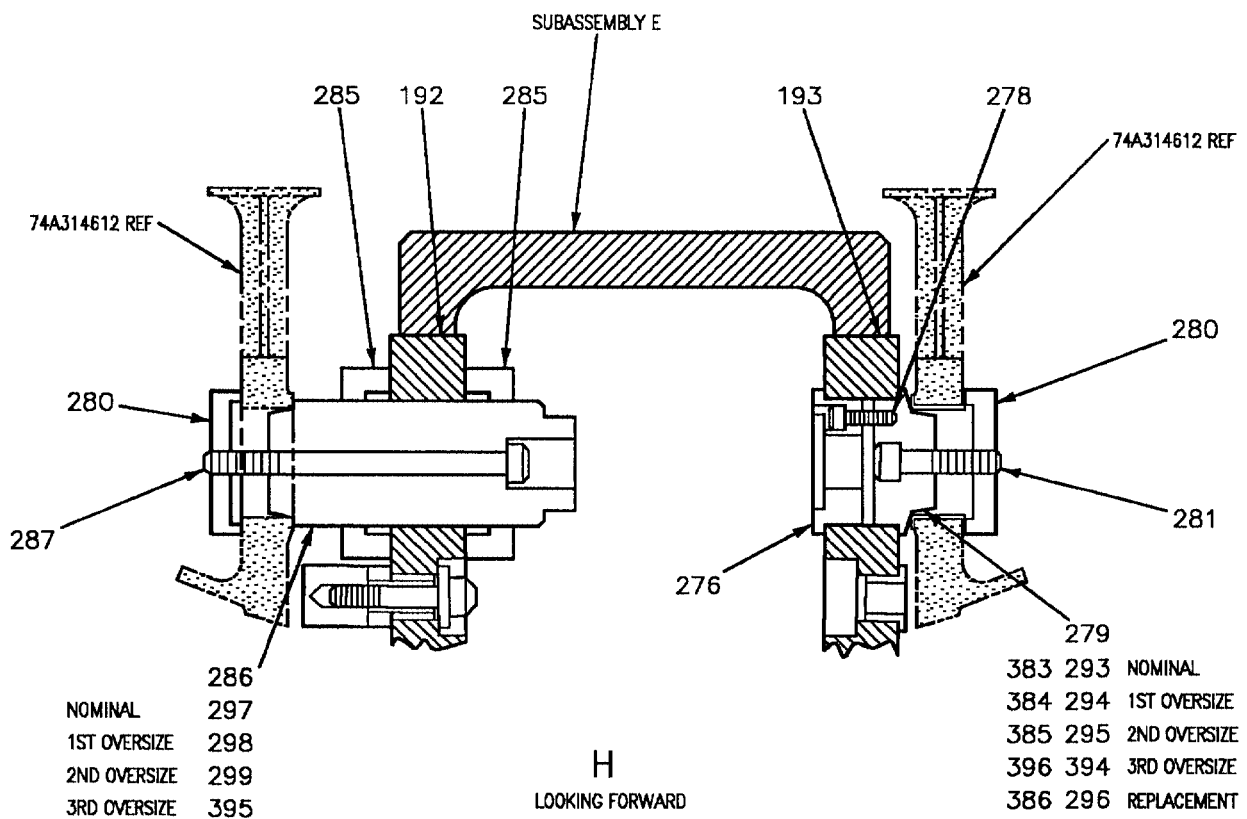
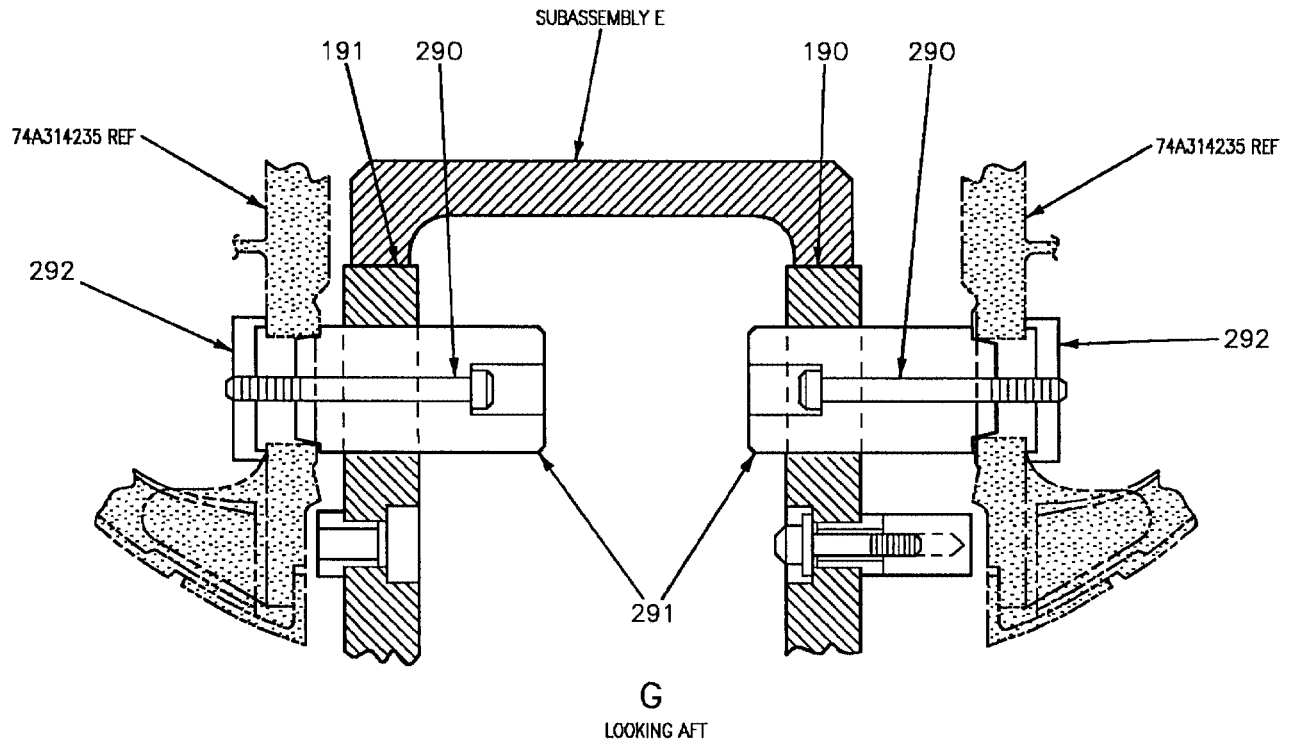
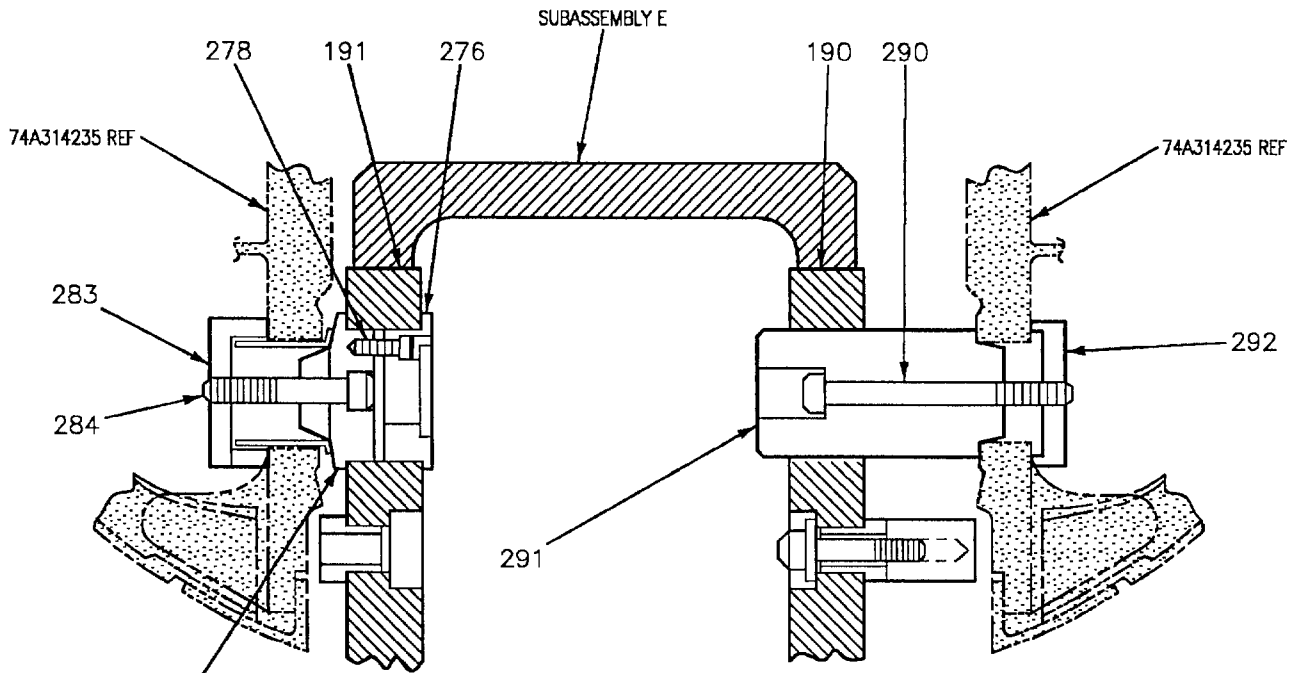
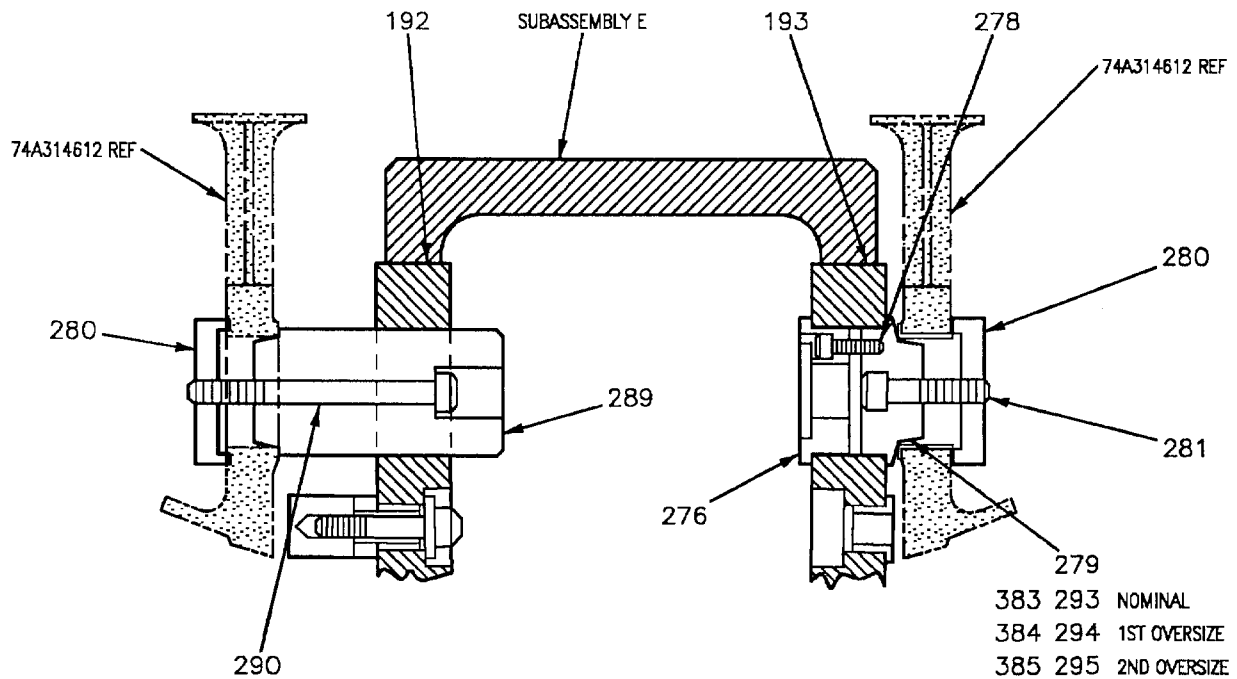


Figure 3. Two Support Fittings, Replacement (Sheet 5)



282	
NOMINAL	301 387
1ST OVERSIZE	302 388
2ND OVERSIZE	303 389
3RD OVERSIZE	393 395
REPLACEMENT	304 390



383	293	NOMINAL
384	294	1ST OVERSIZE
385	295	2ND OVERSIZE
396	394	3RD OVERSIZE
386	296	REPLACEMENT

18AC-SRM-221-(136-6)02-CAT1

Figure 3. Two Support Fittings, Replacement (Sheet 6)

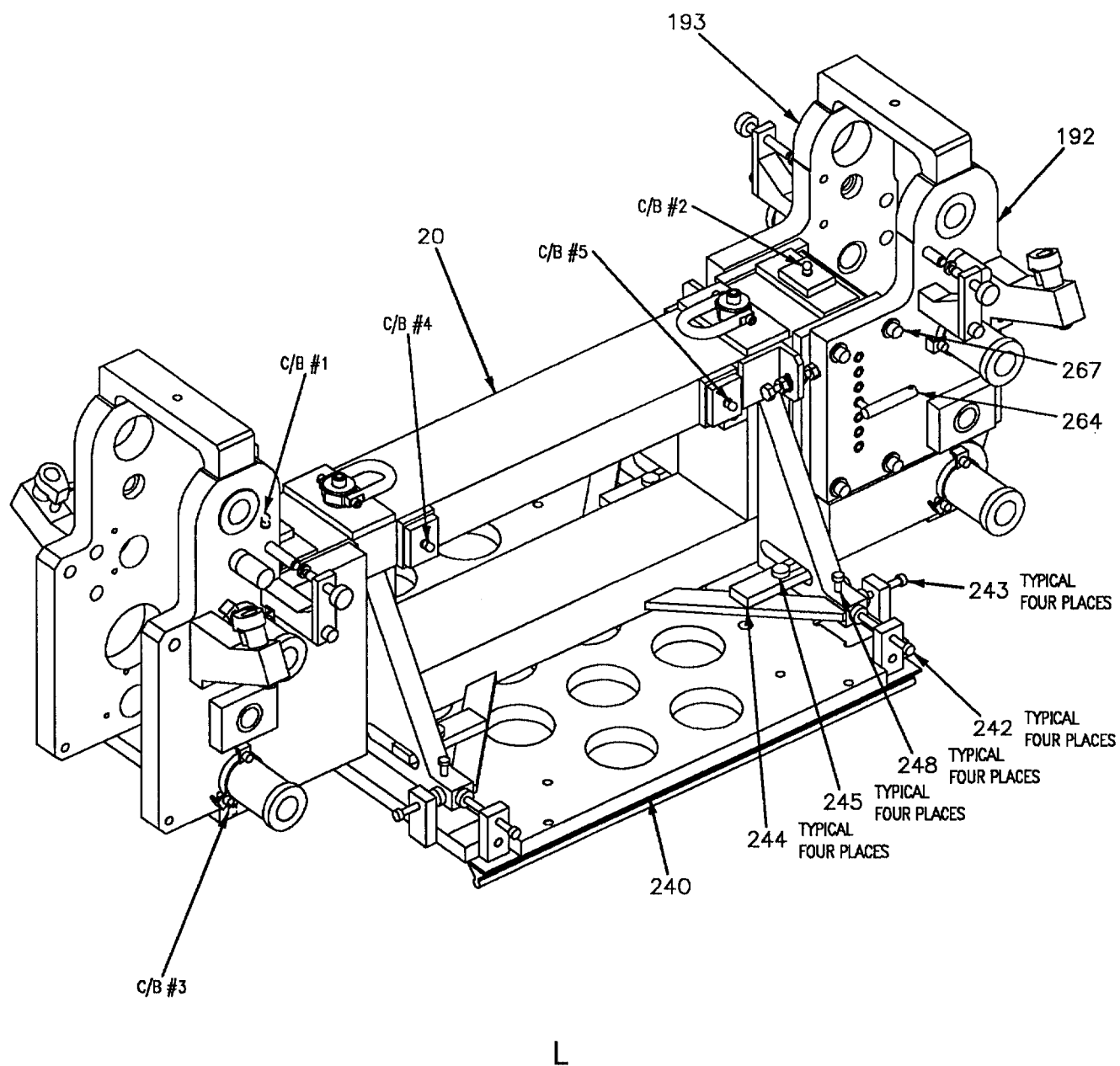
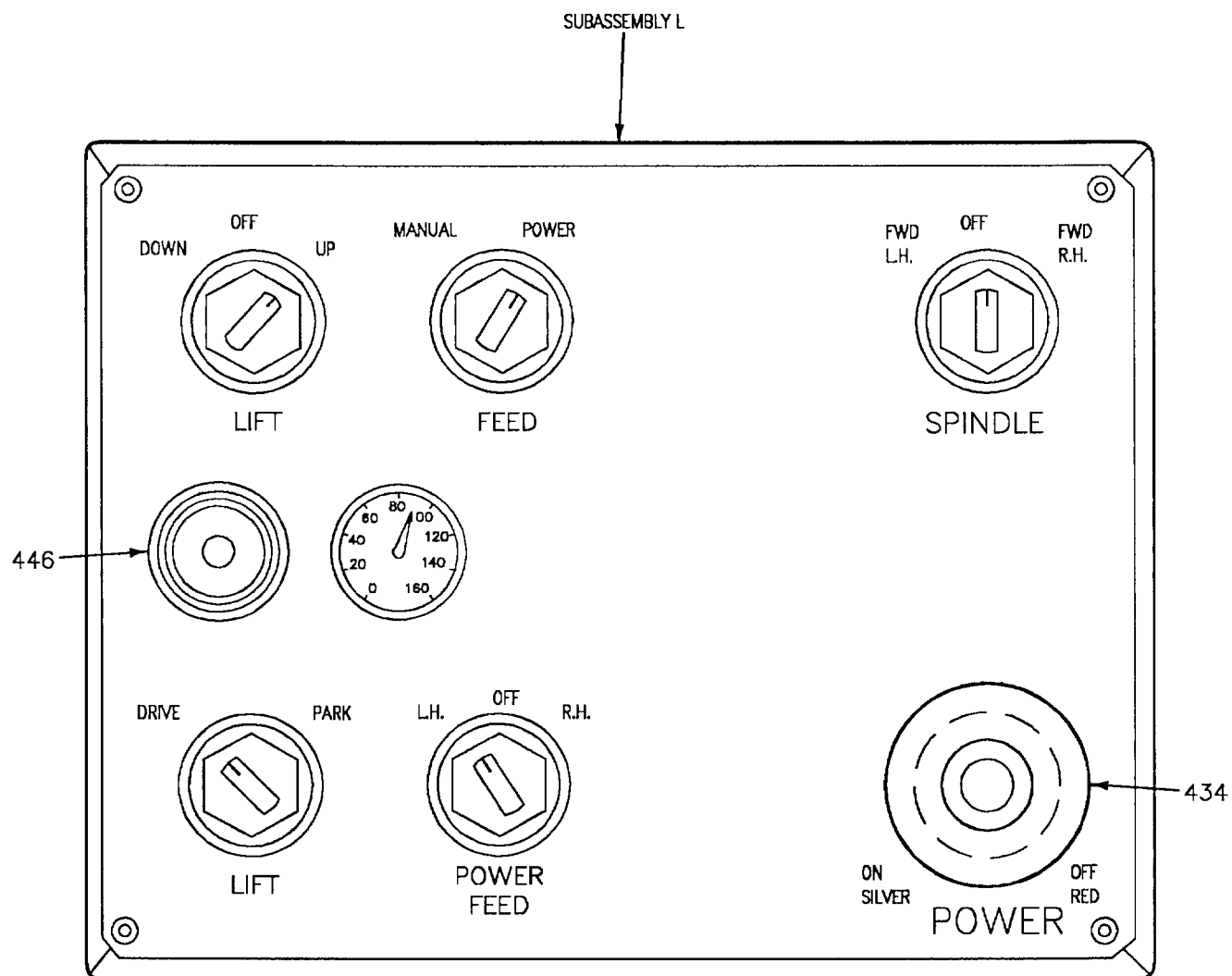


Figure 3. Two Support Fittings, Replacement (Sheet 7)



M

Figure 3. Two Support Fittings, Replacement (Sheet 8)

Detail No.	Name	Function
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly F	Alignment Frame	Checks for correct X plane location in nose landing gear bay.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
19	Jacking Beam	Used to support the aircraft and secure Subassembly E using (detail 198, 199 and 200).
20	Welded Assembly	Used to attach (detail 240) and becomes a part of Subassembly E.
23	Support	Pins to Subassembly E with (detail 178) and to Subassembly F with (detail 178) supporting Subassembly F in nose landing gear bay.
24	Clamp	Used to hold 74A314612, right hand trunnion and (detail 193) in the correct position using (detail 319).
25	Clamp	Used to hold 74A314612, left hand trunnion and (detail 192) in the correct position using (detail 321).
26	Clamp	Used to hold 74A314235, left hand drag brace and (detail 190) in the correct position using (detail 324).
27	Clamp	Used to hold 74A314235, right hand drag brace and (detail 191) in the correct position using (detail 326).
176	L-Brackets	Used to check for correct X plane between 74A314208 plates.
177	Bushing	Used to check for correct X plane between left hand 74A314208 plate.
178	L-pins	Aligns support locator (detail 23) in nominal position.
190	Plate	Part of Subassembly E, used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.

Figure 3. Two Support Fittings, Replacement (Sheet 9)

Detail No.	Name	Function
198	Screw	Attachs (detail 19) to Subassembly E with (detail 199 and 200).
199	Swivel Washers	Used on forward and aft side (detail 19) with (detail 198 and 200) to attach (detail 19) to Subassembly E.
200	Nuts	Used on forward side of (detail 19) with (detail 198) to attach (detail 19) to Subassembly E.
240	Plate	Used to support and lift Subassembly E.
242	Adjustment Screws	Used to adjust (detail 291) into right hand trunnion fitting.
243	Adjustment Screws	Used with (detail 242) to adjust (detail 291) into right hand trunnion.
244	Clamp	Used to secure Subassembly E to (detail 20) and (detail 240).
245	Bolt	Used to secure (detail 244) to (detail 240).
248	Adjustment Screws	Used to adjust height of Subassembly E from (detail 240).
262	Bushing	Used to check for correct X plane location in left and right hand drag brace area.
263	Bushing	Used to check for correct X plane location in left and right hand trunnion area.
264	L-Pin	Used to secure (detail 192) and (detail 200) in drag brace
267	Screws	Used to lock in place (detail 192) and (detail 20).
272	Holding Pin Bushing	Used to check for correct X plane location in left hand trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
276	Plug	Installed into plate (detail 191 and 193), secured with screw (detail 278).
278	Screws	Used to secure plug (detail 276).
279	Sleeve Fittings	Installed into (detail 193), secured to (detail 276) with (detail 281).
280	Caps	Used to take up the slack in Z plane in drag brace area. Secured with (detail 289 and 290).

Figure 3. Two Support Fittings, Replacement (Sheet 10)

Detail No.	Name	Function
281	Screw	Used to secure cap (detail 280) and take up the slack on right hand drag brace fitting, 74A314612.
282	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
283	Cap	Used to take up the slack in Z plane in trunnion support area. Secured with (detail 284).
284	Screw	Used to secure cap (detail 283) and take up slack on right hand trunnion fitting, 74A314235.
285	Nuts	Used to lock (detail 286) into (detail 192).
286	Plug	Used to line up left hand drag brace sleeve 74A314663, with (detail 285).
287	Screw	Used to secure (detail 280) and take up slack between 74A314612 and (detail 272) on left hand drag brace area.
288	Plug	Used to line up left hand trunnion sleeve 74A314395, with (detail 285).
289	Plug	Installed into (detail 192) and secured by (detail 290) with (detail 280) in left hand drag brace area.
290	Screw	Used to secure cap (detail 280) and take up slack on left hand drag brace fitting. 74A314612.
291	Plugs	Installed into (detail 190 and 192) secured to (detail 280 and 292) with (detail 290) in left hand trunnion and left hand drag brace area.
292	Caps	Used to take up slack in Z plane in trunnion area Secured with (detail 284 and 290).
293	Sleeve Fitting	Installed into (detail 193) secured to (detail 276) with (detail 278).
294	Sleeve Fitting	Used in 1st oversize, installed into (detail 193) secured to (detail 276) with (detail 278).
295	Sleeve Fitting	Used in 2nd oversize, installed into (detail 193) secured to (detail 276) with (detail 278).
296	Sleeve Fitting	Used in replacement support fitting in drag brace 74A314612, for reaming and spotfacing.

Figure 3. Two Support Fittings, Replacement (Sheet 11)

Detail No.	Name	Function
297	Plug	Used to line up left hand drag brace fitting 74A314612, secured with two (detail 285).
298	Plug	Used in 1st oversize, to line up left hand drag brace fitting 74A314612, secured with two (detail 285).
299	Plug	Used in 2nd oversize, to line up left hand drag brace fitting 74A314612, secured with two (detail 285).
300	Plug	Used to line up left hand drag brace fitting 74A314612, for reaming and spotfacing.
301	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
302	Sleeve Fitting	Used in 1st oversize, installed into (detail 191), secured to (detail 276) with (detail 284).
303	Sleeve Fitting	Used in 2nd oversize, installed into (detail 191), secured to (detail 276) with (detail 284).
304	Sleeve Fitting	Used in replacement support fitting in trunnion 74A314395, for reaming and spotfacing.
305	Plug	Used to line up left hand trunnion fitting 74A314235, secured with two (detail 285).
306	Plug	Used in 1st oversize, line up left hand trunnion fitting 74A314235, secured with two (detail 285).
307	Plug	Used in 2nd oversize, line up left hand trunnion fitting 74A314235, secured with two (detail 285).
308	Plug	Used to line up left hand trunnion fitting 74A314235, for reaming and spotfacing.
309	Clamp Assemblies	Used to secure 74A314612 and 74A314619 longeron.
310	Nuts	Used to tighten up (detail 309) in trunnion and drag brace area.
311	Jacks	Used to take up slack between (detail 309), 74A314612 and 74A314619 longeron.
312	Screws	Used to attach (detail 313, 314, 315 and 316) to Subassembly E.
313	Block	Attached to (detail 193) and used as support for (detail 309).

Figure 3. Two Support Fittings, Replacement (Sheet 12)

Detail No.	Name	Function
314	Block	Attached to (detail 192) and used as support for (detail 309).
315	Block	Attached to (detail 190) and used as support for (detail 309).
316	Block	Attached to (detail 191) and used as support for (detail 309).
317	Retaining Screws	Used to secure left and right hand longeron 74A314612 to Subassembly E.
318	Jack	Used to help secure right hand longeron 74A314612 to Subassembly E.
319	Cap Screw	Used to attach (detail 24) to (detail 193).
320	Jack	Used to help secure left hand longeron 74A314612 to Subassembly E.
321	Cap Screw	Used to attach (detail 25) to (detail 192).
322	Retaining Screws	Used to secure left and right hand trunnion support 74A314235 to Subassembly E.
323	Jack	Used to secure left hand trunnion support 74A314235 to Subassembly E.
324	Cap Screw	Used to attach (detail 26) to (detail 190).
325	Jack	Used to help secure right hand trunnion support 74A314235 to Subassembly E.
326	Cap Screw	Used to attach (detail 27) to (detail 191).
383	Sleeve Fitting	Used in place of (detail 293) if it will not install in drag brace fitting.
384	Sleeve Fitting	Used in 1st oversize, in place of (detail 294) if it will not install in drag brace fitting.
385	Sleeve Fitting	Used in 2nd oversize, in place of (detail 295) if it will not install in drag brace fitting.
386	Sleeve Fitting	Used in replacement support fitting in drag brace 74A314612, for reaming and spotfacing.
387	Sleeve Fitting	Used in place of (detail 301) if it will not install in trunnion fitting.
388	Sleeve Fitting	Used in 1st oversize, in place of (detail 302) if it will not install in trunnion fitting.

Figure 3. Two Support Fittings, Replacement (Sheet 13)

Detail No.	Name	Function
389	Sleeve Fitting	Used in 2nd oversize, in place of (detail 303) if it will not install in trunnion fitting.
390	Sleeve Fitting	Used in replacement support fitting in trunnion 74A314395, for reaming and spotfacing.
391	Plug	Used in 3rd oversize, line up left hand trunnion fitting 74A314235, secured with two (detail 285).
393	Sleeve Fitting	Used in 3rd oversize, installed into (detail 191), secured to (detail 276) with (detail 284).
394	Sleeve Fitting	Used in 3rd oversize, installed into (detail 193), secured to (detail 276) with (detail 278).
395	Sleeve Fitting	Used in 3rd oversize, to line up left hand drag brace fitting 74A314612, secured with two (detail 285).
396	Sleeve Fitting	Used in 3rd oversize, in place of (detail 394) if it will not install in drag brace fitting.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
550	Lift Platform	Used to lift Subassembly E up or down.

Figure 3. Two Support Fittings, Replacement (Sheet 14)

9. ONE SUPPORT FITTING, REPLACE- MENT. Figure 4.

Support Equipment Required

Part Number or Type Designation	Nomenclature
RE274314235	Locating Fixture - N.L.G. Trunnion/ Drag Brace Supports
RE374314235	Tool Set, N.L.G. Trunnion/Drag Brace Supports

Materials Required

Specification or Part Number	Nomenclature
CCC-C-440, TYPE 1, CLASS 1	Cheesecloth
■ TT-I-735	Isopropyl Alcohol
MIL-S-83430, CLASS B-1/2	Sealing Compound
■ P-D-680, TYPE II	Dry Cleaning Solvent

NOTE

Do only applicable steps for the fitting being replaced.

a. Remove fasteners attaching damaged nose landing gear trunnion support fitting to mating structure. See figure 8 for fasteners location.

b. Remove damaged nose landing gear trunnion support fitting.

c. Remove fasteners attaching damaged nose landing gear drag brace support fitting to mating structure. See figure 9 for fastener location.

d. Remove damaged nose landing gear drag brace support fitting.



Isopropyl Alcohol, TT-I-735

2

e. Clean all residual sealant from mating structure using plastic scraper and cheesecloth moistened with isopropyl alcohol.

NOTE

Manufactured replacement of trunnion support fitting 74A314235, leaving 0.090 extra on boss for facing. Bore hole to 2.00 +0.002 -0.000 diameter.

Manufactured replacement of drag brace support fitting 74A314612, leaving 0.090 extra on boss for facing. Bore hole to 2.308 +0.002 -0.000 diameter.

10. SET UP.

NOTE

Left and right procedures the same.

a. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace fittings. Turn LIFT knob to OFF position, figure 4, detail G.

b. Steps 1 through 8 applies at side where there are two existing fittings.

(1) Install proper fittings into plate (detail 191) with three screws (detail 278), see Table 7, for Trunnion Fitting Condition, figure 4, detail A.

(2) Secure plate (detail 191) to trunnion support fitting, installing cap (detail 283) by attaching it with screw (detail 284), figure 4, detail A.

(3) Install proper fittings into plate (detail 193) with three screws (detail 278), see Table 7, for Drag Brace Fitting Condition, figure 4, detail B.

(4) Secure plate (detail 193) to drag brace support fitting, installing cap (detail 280) by attaching it with screw (detail 281), figure 4, detail B.

(5) Locate left hand drag brace support fitting, 74A314612 by installing plug (detail 289) into 2.751 diameter hole in plate (detail 192), securing it with cap (detail 280) by attaching it with screw (detail 290), figure 4, detail B.

(6) Loosen bolt (detail 245), clamp (detail 244) four places that are positioned on plate (detail 240).

(7) Use adjusting screws (detail 242, 243 and 248) four places, figure 4, detail F, so as to engage sleeve fitting (detail 282, 301, 302, 303 or 393) into right hand trunnion support fitting 74A314235, or (detail 279, 293, 294, 295 or 394) into the right hand drag brace support fitting 74A314612, figure 4, detail A and B.

(8) If center to center is off in right hand drag brace support fitting 74A314612, pull L-pins (detail 264) on each side of Subassembly E.

(9) Loosen four screws (detail 267) on each side of Subassembly E.

(10) Adjust centered distance by turning screw (detail 215) on each side of Subassembly E, figure 4, detail F, either by tightening or loosening until sleeve fitting (detail 279, 293, 294, 295 or 394) can be engaged into bearing sleeve 74A314663 or drag brace support fitting 74A314612, figure 4, detail B.

NOTE

Make sure that spacing is within ± 0.030 . If not, engineering disposition has to be obtained for out of dimension repair.

(11) Install L-pins (detail 264) into adjustment hole from -0.030 to +0.030 on each side of Subassembly E based upon if forward or aft adjustment was made, figure 4, detail F.

(12) Torque screws (detail 267) four places on each side of Subassembly E to 60 ft lbs and clamp welded assembly (detail 20) with clamp (detail 244) with bolt (detail 245), four places, figure 4, detail F.

c. Steps 1 and 2 applies at third existing fitting, left hand trunnion support fitting, 74A314235.

(1) Install proper plug and nuts into plate (detail 190), see Table 8, for Trunnion Fitting Condition, figure 4, detail C.

(2) Secure plate (detail 190) to trunnion support fitting, installing cap (detail 283) by attaching it with screw (detail 287) or attaching cap (detail 292), if bearing sleeve was removed because of damage, figure 4, detail C.

d. Steps 1 through 3 applies at third existing fitting, if left hand drag brace support fitting, 74A314612.

(1) Install proper plug and nuts into plate (detail 192), see Table 8, for Drag Brace Fitting Condition, figure 4, detail D.

(2) Secure plate (detail 192) to drag brace support fitting, installing cap (detail 280) by attaching it with screw (detail 287), figure 4, detail D.

(3) Locate right hand drag brace fitting, 74A314612 by installing plug (detail 289) into 2.751 diameter hole in plate (detail 193), securing it with cap (detail 280) by attaching it with screw (detail 290), figure 4, detail D.

e. Steps 1 and 6 applies at third existing fitting, right hand trunnion fitting, 74A314235.

(1) Install proper fittings into plate (detail 191) with three screws (detail 278), see Table 9, for Trunnion Fitting Condition, figure 4, detail E.

(2) Secure plate (detail 191) to trunnion support fitting, installing cap (detail 283) by attaching it with screw (detail 284), figure 4, detail E.

(3) Locate left hand trunnion support fitting, 74A314235 by installing plug (detail 291) into 2.751 diameter hole in plate (detail 190), securing it with cap (detail 292) by attaching it with screw (detail 290), figure 4, detail E.

(4) Loosen bolt (detail 245), clamp (detail 244) four places that are positioned on plate (detail 240), figure 4, detail F.

(5) Use adjusting screws (detail 242, 243 and 248) four places, figure 4, detail F, so as to engage sleeve fitting (detail 282, 301, 302, 303 or 393) into left hand trunnion support fitting 74A314235, or (detail 286, 297, 298, 299, or 395) into the left hand drag brace support fitting 74A314612, figure 4, detail D and E.

(6) If center to center is off in left hand drag brace support fitting 74A314612, pull L-pins (detail 264) on each side of Subassembly E, figure 4, detail F.

(7) Loose four screws (detail 267) on each side of Subassembly E.

(8) Adjust center distance by turning screw (detail 215) on each side of Subassembly E, figure 4, detail F,

either by tightening or loosening until plug (detail 286, 297, 298, 299 or 395) can be engaged into bearing sleeve 74A314663 or drag brace support fitting 74A314612, figure 4, detail D.

NOTE

Make sure that spacing is within ± 0.030 . If not, engineering disposition has to be obtained for out of dimension repair.

(9) Install L-pins (detail 264) into adjustment hole from -0.030 to +0.030 on each side of Subassembly E based upon if forward or aft adjustments was made, figure 4, detail F.

(10) Torque screws (detail 267) four places on each side of Subassembly E to 60 ft lbs and clamp welded assembly (detail 20) with clamp (detail 244) with bolt (detail 245), four places, figure 4, detail F.

f. Install bushing (detail 262) into plate (detail 192) and holding pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left side drag brace support fitting area, figure 4, detail B.

g. Install bushing (detail 262) into plate (detail 193), figure 4, detail B.

h. Install bushing (detail 263) and holding pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left side trunnion support fitting area, figure 4, detail A.

i. Install bushing (detail 263) into plate (detail 191), figure 4, detail A.

j. Install Subassembly F onto both sides of Subassembly E by pinning it with two L-pins (detail 178).

k. Swing Subassembly F up into the nose landing gear bay, then pin support (detail 23) with two L-pins (detail 178) on both sides of Subassembly E, figure 1.

l. Check for correct X plane location, equal feel within ± 0.030 in nose landing gear bay at 74A314208 plates by inserting 0.250 inch feeler gage between L-brackets (detail 176) and 74A314208 plate on right side and between bushing (detail 177) and 74A314208 plate on left side, figure 1, detail E.

m. Check for correct X plane location, equal feel within 0.030 at 74A314235 trunnion support fitting area, by inserting 0.250 inch feeler gage between

bushing (detail 263) and 74A314235 trunnion support fitting, right hand side and between holding pin bushing (detail 272) and 74A314235 trunnion support fitting, on left side, figure 4, detail A.

n. If alignment check fails to meet the requirements at 74A314235 trunnion support fitting, shim as required between plate (detail 191) and sleeve fitting, see Table 9, for Trunnion Fitting Condition, figure 4, detail A.

o. Check for correct X plane location, equal feel within +0.030 at 74A314612 drag brace support fitting area, by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support fitting, right side and between bushing (detail 272) and 74A314612 drag brace support fitting, on the left side, figure 4, detail B.

p. If alignment check fails to meet the requirements of 74A314612 drag brace support fitting, adjust plug, see Table 8, for Drag Brace Fitting Condition, by loosening or tightening nuts (detail 285) and/or shimming as required between plate (detail 192) and sleeve fitting, see Table 8, for Drag Brace Fitting Condition, figure 4, detail D.

q. Secure Subassembly E to airframe.

(1) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 323), figure 1, detail G.

(2) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 325), figure 1, detail G.

(3) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 318), figure 1, detail H.

(4) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 320), figure 1, detail H.

(5) On left hand side of longeron 74A314619, attach block (detail 315) to plate (detail 190) by installing two screws (detail 312) from inboard side. Clamp longeron

74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(6) On right hand side of longeron 74A314619, attach block (detail 316) to plate (detail 191) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(7) On right hand side of longeron 74A314612, attach block (detail 313) to plate (detail 193) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(8) On left hand side of longeron 74A314612 attach block (detail 314) to plate (detail 192) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(9) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 1, detail F.

r. Install nose landing gear trunnion support fitting.



Use care when back drilling not to elongate holes in mating structure.

(1) Back drill holes in nose landing gear trunnion support fitting using existing holes in mating structure as a guide. See figure 8 for fastener location and hole diameter.

(2) Apply finish system as required to new nose landing gear trunnion support fitting and any other areas requiring finish system touch up (A1-F18AC-SRM-500, WP042 00).



Sealing Compound (Faying Sealant),
MIL-S-83430, Type B-1/2

(3) Fay surface seal interfacing surfaces on nose landing gear trunnion support fitting and mating structure. For sealant preparation and application (A1-F18AC-SRM-200, WP011 00).

s. Wet install fasteners. For fastener sealing (A1-F18AC-SRM-200, WP011 00). See figure 8 for fastener location and hole diameter.

t. For installing attaching hardware to skin (Door 25, 30 and 35) substructure. Refer to REPLACEMENT (A1-F18AC-SRM-222, WP032 00).

u. Apply finish system as required (A1-F18AC-SRM-500, WP042 00).

v. Install nose landing gear drag brace support fitting.



Use care when back drilling not to elongate holes in mating structure.

(1) Back drill holes in nose landing gear trunnion support fitting using existing holes in mating structure as a guide. See figure 9 for fastener location and hole diameter.

(2) Apply finish system as required to new nose landing gear trunnion support fitting and any other areas requiring finish system touch up (A1-F18AC-SRM-500, WP042 00).

(3) Fay surface seal interfacing surfaces on nose landing gear drag brace support fitting and mating structure. For sealant preparation and application (A1-F18AC-SRM-200, WP011 00).

w. Wet install fasteners. For fastener sealing (A1-F18AC-SRM-200, WP011 00). See figure 9 for fastener location and hole diameter.

x. For installing attaching hardware to skin (Door 25, 30 and 35) substructure. Refer to REPLACEMENT (A1-F18AC-SRM-222, WP032 00).

y. Apply finish system as required (A1-F18AC-SRM-500, WP042 00).

z. Remove Subassembly E.

aa. Steps 1 through 3 applies at side where there were two existing fittings.

(1) On right side of drag brace support fitting 74A314612, remove screw (detail 281) and cap (detail 280) from sleeve fitting, see Table 7, for Drag Brace fitting Condition. Remove three screws (detail 278) from (detail 276) holding sleeve fitting, see Table 7, for Drag Brace fitting Condition. Remove sleeve fitting, see Table 7, for Drag Brace fitting Condition and sleeve fitting (detail 276), figure 4, detail B.

(2) On left side of drag brace support fitting 74A314612, remove screw (detail 290) and cap (detail 280) from plug (detail 289). Remove plug (detail 289) from plate (detail 192), figure 4, detail B.

(3) On right side of trunnion support fitting 74A314235, remove screw (detail 284) and cap (detail 283) from sleeve fitting, see Table 7, for Trunnion Fitting Condition. Remove three screws (detail 278) from sleeve fitting (detail 276) holding sleeve fitting, see Table 7, for Trunnion Fitting Condition. Remove sleeve fitting, see Table 7, for Trunnion Fitting Condition and sleeve fitting (detail 276), figure 4, detail A.

ab. Step 1 and 2 applies at third existing fitting, left hand trunnion support fitting, 74A314235.

(1) On left side of trunnion support fitting 74A314612, remove screw (detail 287) and cap (detail 283 or 292) from plug, see Table 8, for Trunnion Fitting Condition. Remove two nuts (detail 285) and plug, see Table 8, for Trunnion Fitting Condition, figure 4, detail C.

(2) On right side of trunnion support fitting 74A314235, remove screw (detail 290) and cap (detail 292) from plug (detail 291). Remove plug detail 297) from plate (detail 191), figure 4, detail C.

ac. Step 1 and 2 applies at third existing fitting, left hand drag brace support fitting, 74A314612.

(1) On left side of drag brace support fitting 74A314612, remove screw (detail 287) and cap (detail 280) from plug, see Table 8, for Drag Brace Fitting Condition. Remove two nuts (detail 285) and plug, see Table 8, for Drag Brace Fitting Condition, figure 4, detail D.

(2) On right side of drag brace support fitting 74A314612, remove screw (detail 290) and cap (detail 280) from plug (detail 289). Remove plug (detail 280) from plate (detail 193), figure 4, detail D.

ad. Step 1 and 2 applies at third existing fitting, right hand trunnion support fitting, 74A314235.

(1) On right side of trunnion support fitting 74A314235, remove screw (detail 284) and cap (detail 283) from sleeve fitting, see Table 9, for Trunnion Fitting Condition. Remove three screws (detail 278) from sleeve fitting (detail 276) holding sleeve fitting, see Table 9, for Trunnion Fitting Condition. Remove sleeve fitting, see Table 9, for Trunnion Fitting Condition and remove sleeve fitting (detail 276), figure 4, detail E.

(2) On left side of trunnion support fitting 74A314235, remove screw (detail 290) and cap (detail 292) from plug (detail 291). Remove plug (detail 289) from plate (detail 190), figure 4, detail E.

ae. On left side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

af. On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

ag. On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

ah. On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

ai. On left side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace support fitting 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 1, detail H.

aj. On right side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace support fitting, 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 1, detail H.

ak. On left side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion support fitting, 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 1, detail G.

al. On right side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion support fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 1, detail G

am. Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws

(detail 198) from jacking beam (detail 19), figure 1, detail F.

an. On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 4, detail G.

ao. Do trunnion and/or drag brace support fitting reaming, this WP.

Table 7. Replacing One Support Fitting

Fitting Condition	
Trunnion	Fittings
Located In Finished Right Hand Bearing Sleeve	Detail -276 and 282
Located In Nominal Hole In Right Hand Trunnion Fitting	Detail -276 and 301 or 387
Located In 1st Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 302 or 388
Located In 2nd Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 303 or 389
Located In 3rd Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 393 or 395
Located In Right Hand Replacement Fitting Trunnion For Reaming and Spotface	Detail -276 and 304 or 390
Drag Brace	Fittings
Located In Finished Right Hand Bearing Sleeve	Detail -276 and 279
Located In Nominal Hole In Right Hand Drag Brace Fitting	Detail -276 and 293 or 383
Located In 1st Oversize Hole In Right Hand Drag Brace Fitting	Detail -276 and 294 or 384
Located In 2nd Oversize Hole In Right Hand Drag Brace Fitting	Detail -276 and 295 or 385
Located In 3rd Oversize Hole In Right Hand Drag Brace Fitting	Detail -276 and 394 or 396
Located In Right Hand Replacement Fitting Drag Brace For Reaming and Spotface	Detail -276 and 296 or 386

Table 8. Replacing One Support Fitting

Fitting Condition	
Trunnion	Plug and Nuts
Located In Finished Left Hand Bearing Sleeve	Detail -288 and (2) of 285
Trunnion	Plug and Nuts
Located In Nominal Hole In Left Hand Trunnion Fitting	Detail -305 and (2) of 285
Located In 1st Oversize Hole in Left Hand Trunnion Fitting	Detail -306 and (2) of 285
Located In 2nd Oversize Hole in Left Hand Trunnion Fitting	Detail -307 and (2) of 285
Located In 3rd Oversize Hole in Left Hand Trunnion Fitting	Detail -391 and (2) of 285
Located In Left Hand Replacement Fitting Trunnion For Reaming and Spotface	Detail -308 and (2) of 285

Table 8. Replacing One Support Fitting (Continued)

Fitting Condition	
Drag Brace	Plug and Nuts
Located In Finished Left Hand Bearing Sleeve	Detail -286 and (2) of 285
Located In Nominal Hole In Left Hand Drag Brace Fitting	Detail -297 and (2) of 285
Located In 1st Oversize Hole In Left Hand Drag Brace Fitting	Detail -298 and (2) of 285
Located In 2nd Oversize Hole In Left Hand Drag Brace Fitting	Detail -299 and (2) of 285
Located In 3rd Oversize Hole In Left Hand Drag Brace Fitting	Detail -395 and (2) of 285
Located In Left Hand Replacement Fitting Drag Brace For Reaming and Spotface	Detail -300 and (2) of 285

Table 9. Replacing One Support Fitting

Fitting Condition	
Trunnion	Fittings
Located In Finished Right Hand Bearing Sleeve	Detail -276 and 282
Located In Nominal Hole In Right Hand Trunnion Fitting	Detail -276 and 301 or 387
Located In 1st Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 302 or 388
Located In 2nd Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 303 or 389
Located In 3rd Oversize Hole in Right Hand Trunnion Fitting	Detail -276 and 393 or 395
Located In Right Hand Replacement Fitting Trunnion For Reaming and Spotface	Detail -276 and 304 or 390

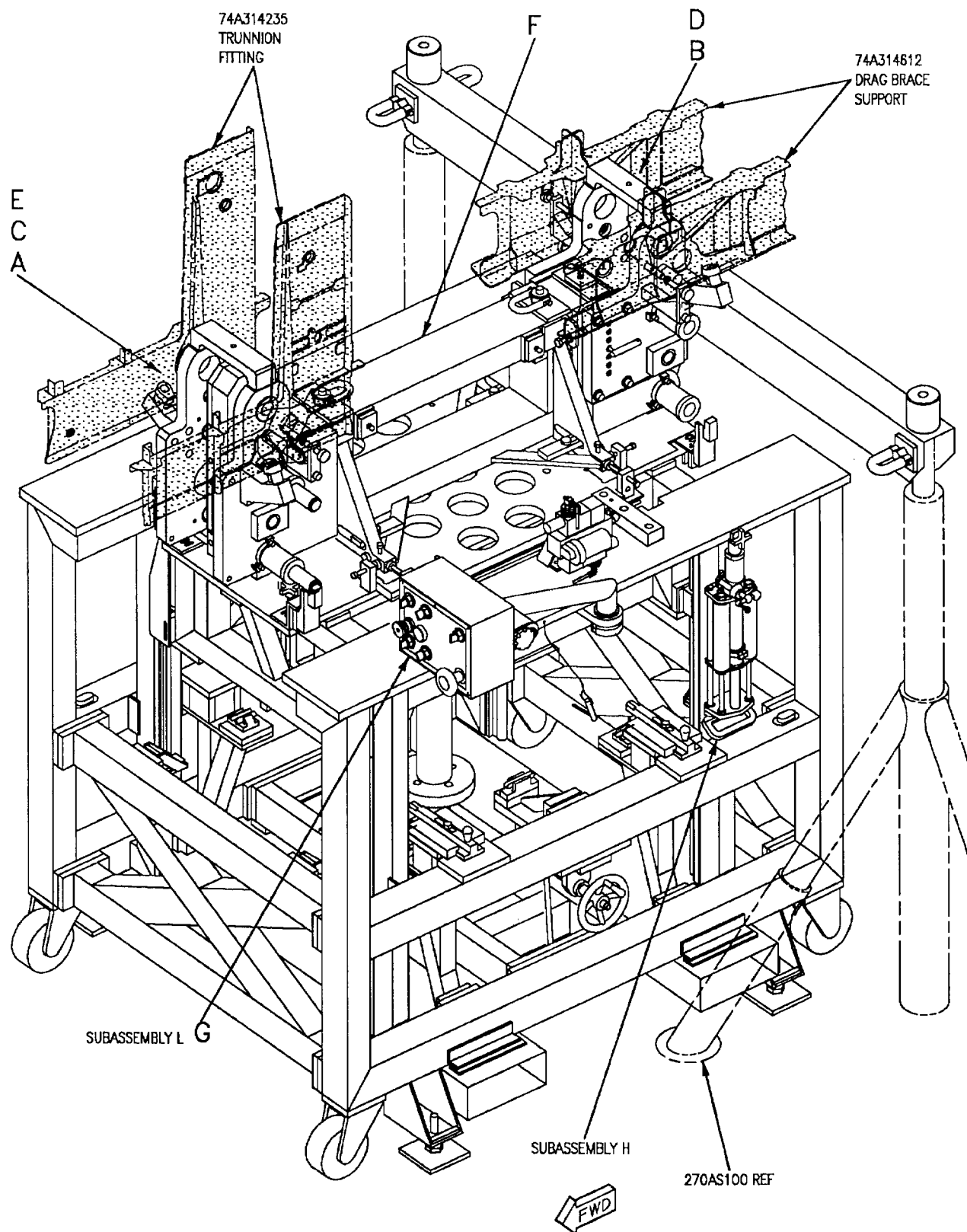
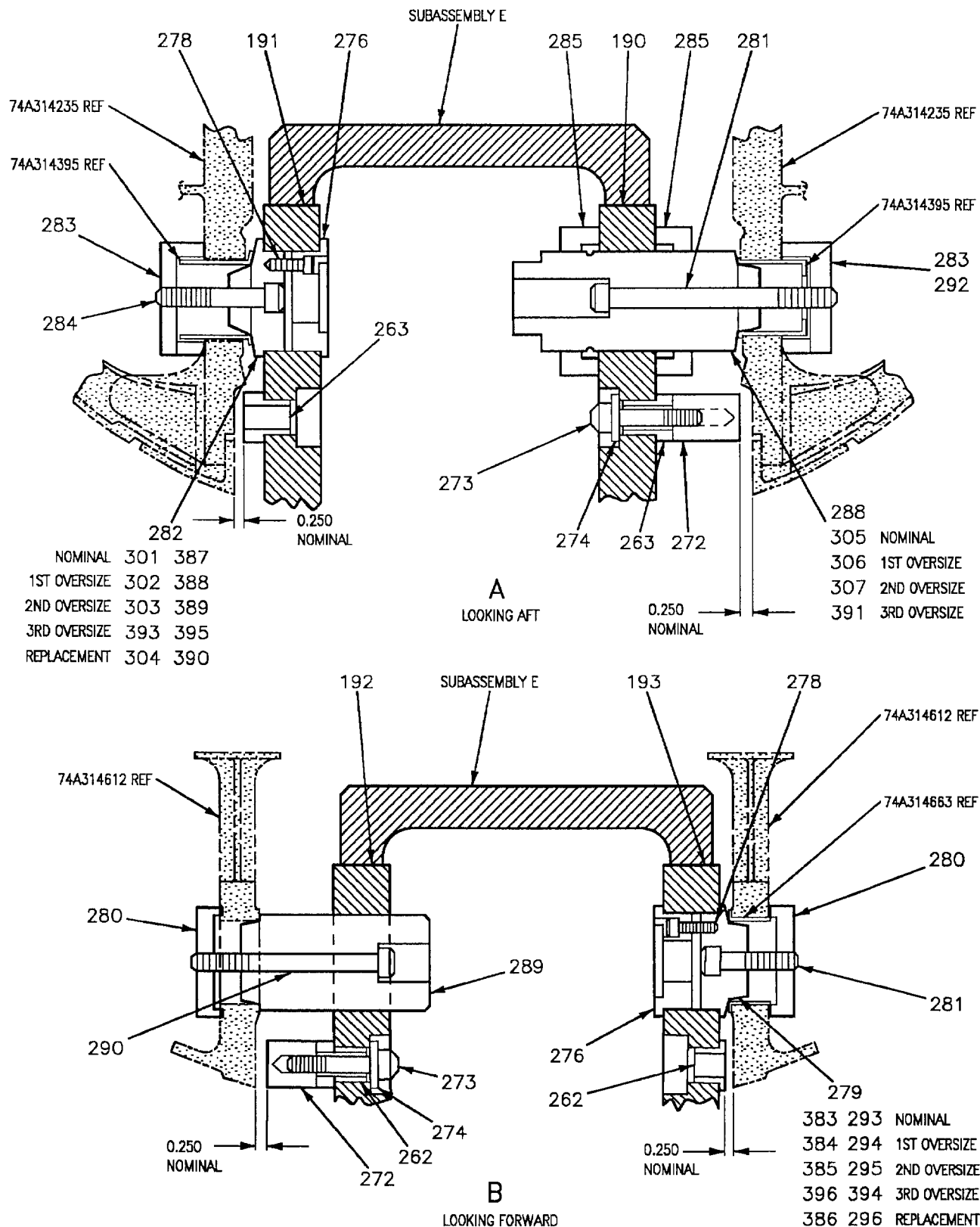


Figure 4. One Support Fitting, Replacement (Sheet 1)



18AC-SRM-221-(137-2)02-CATI

Figure 4. One Support Fitting, Replacement (Sheet 2)

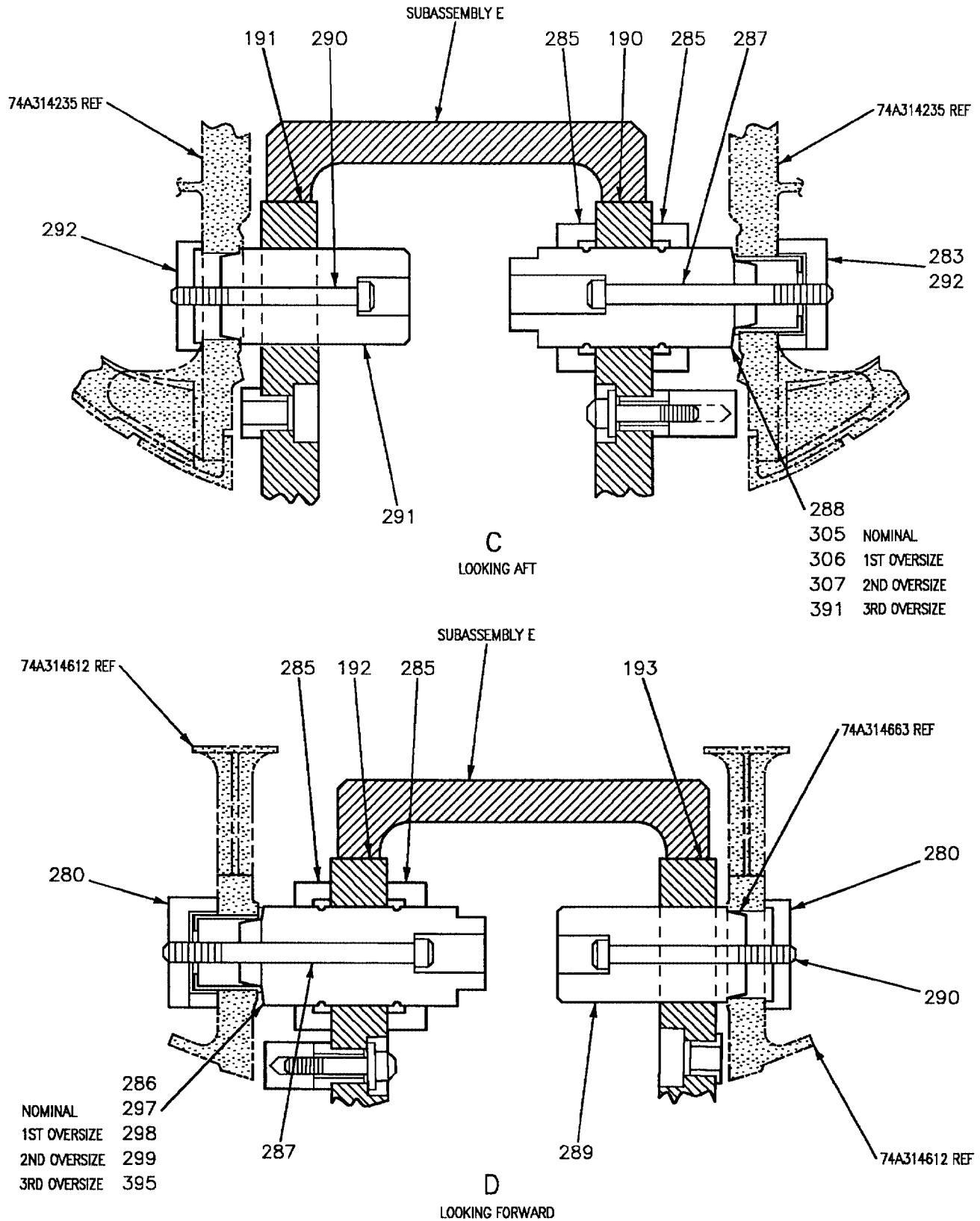


Figure 4. One Support Fitting, Replacement (Sheet 3)

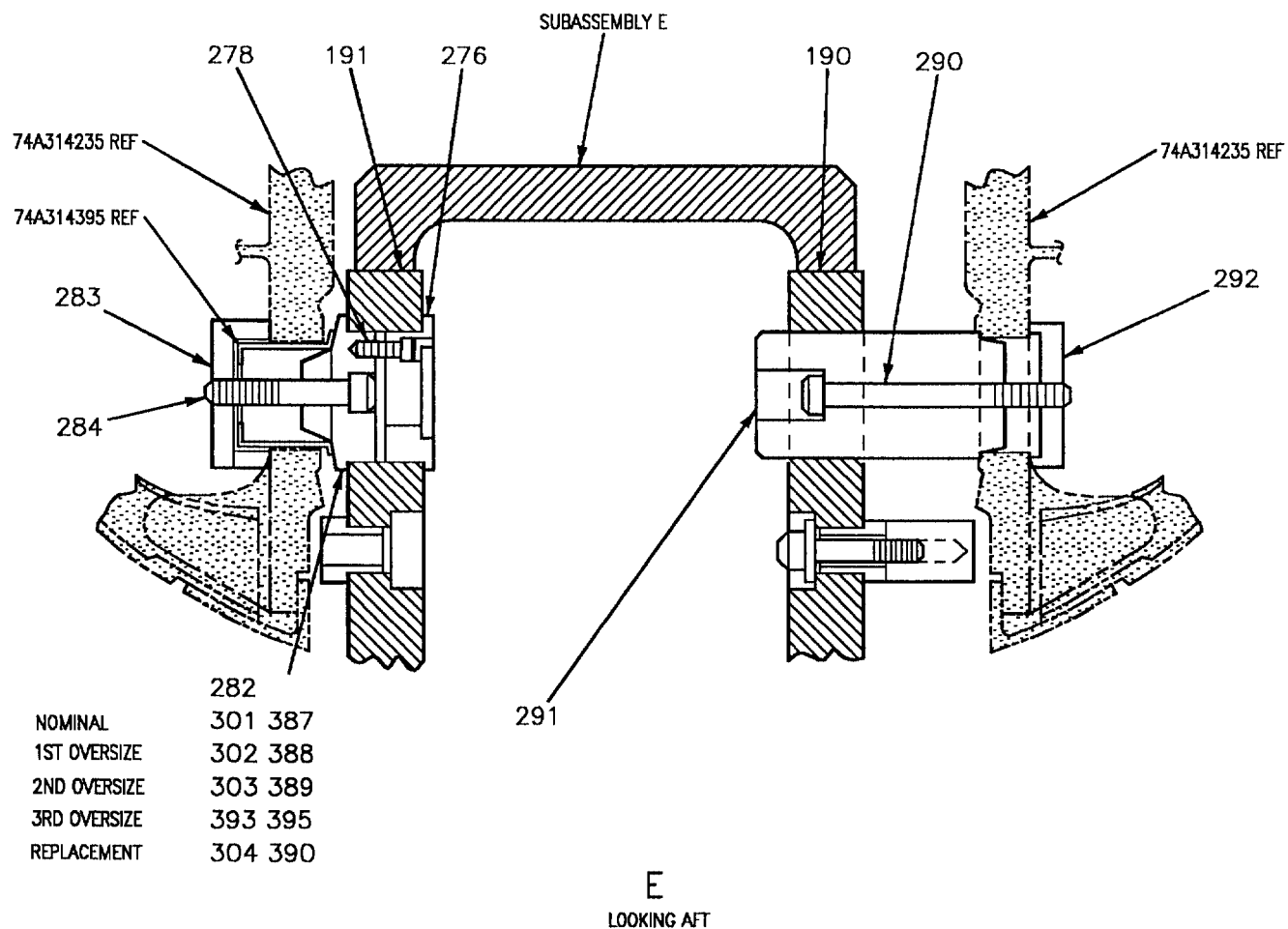
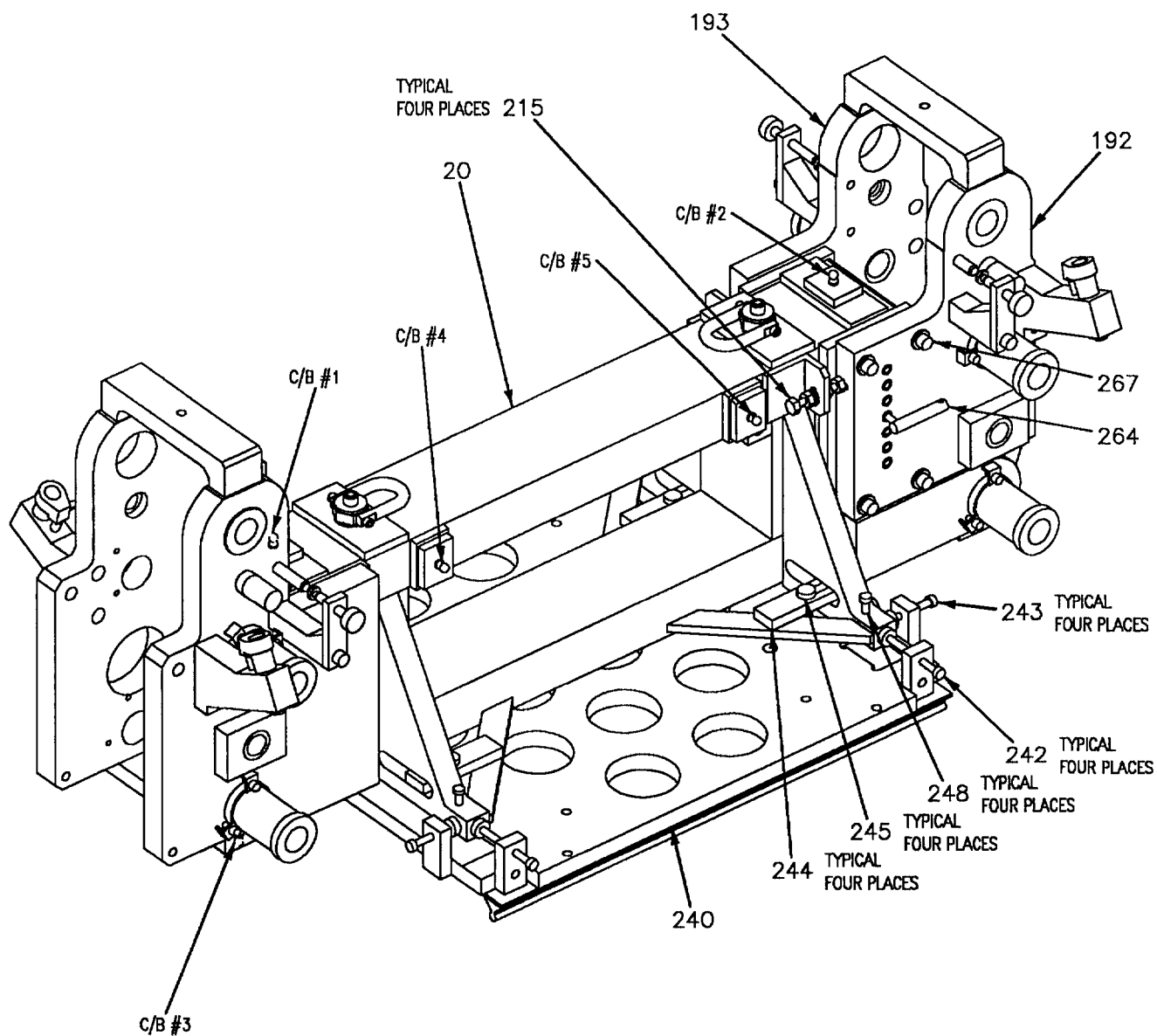


Figure 4. One Support Fitting, Replacement (Sheet 4)



F

Figure 4. One Support Fitting, Replacement (Sheet 5)

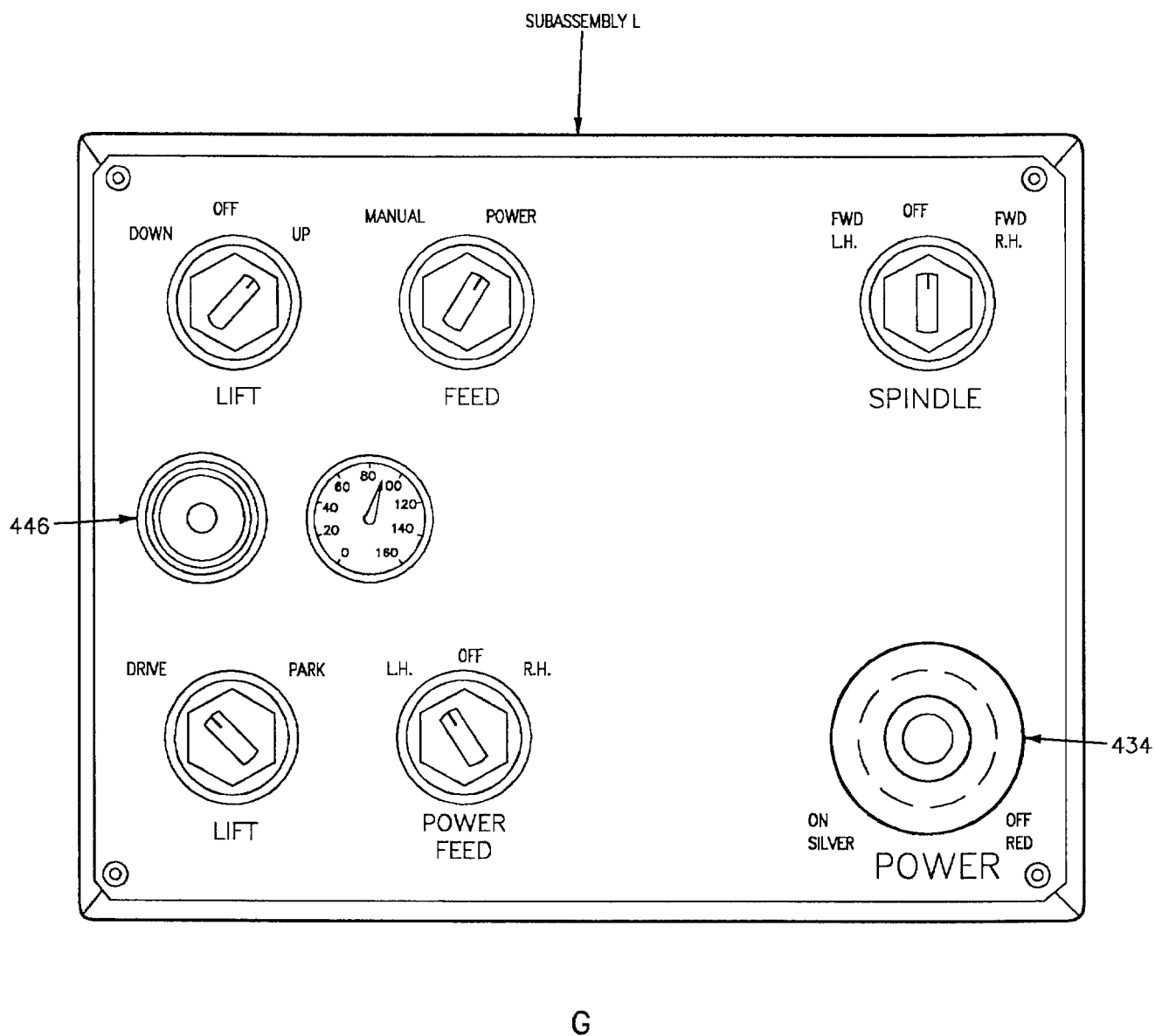


Figure 4. One Support Fitting, Replacement (Sheet 6)

Detail No.	Name	Function
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly F	Alignment Frame	Checks for correct X plane location in nose landing gear bay.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
19	Jacking Beam	Used to support the aircraft and secure Subassembly E using (detail 198, 199 and 200).
20	Welded Assembly	Used to attach (detail 240) and becomes a part of Subassembly E.
23	Support	Pins to Subassembly E with (detail 178) and to Subassembly F with (detail 178) supporting Subassembly F in nose landing gear bay.
24	Clamp	Used to hold 74A314612, right hand trunnion and (detail 193) in the correct position using (detail 319).
25	Clamp	Used to hold 74A314612, left hand trunnion and (detail 192) in the correct position using (detail 321).
26	Clamp	Used to hold 74A314235, left hand drag brace and (detail 190) in the correct position using (detail 324).
27	Clamp	Used to hold 74A314235, right hand drag brace and (detail 191) in the correct position using (detail 326).
176	L-Brackets	Used to check for correct X plane between 74A314208 plates.
177	Bushing	Used to check for correct X plane between left hand 74A314208 plate.
178	L-pins	Aligns support locator (detail 23) in nominal position.
190	Plate	Part of Subassembly E, used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.

Figure 4. One Support Fitting, Replacement (Sheet 7)

Detail No.	Name	Function
198	Screw	Attachs (detail 19) to Subassembly E with (detail 199 and 200).
199	Swivel Washers	Used on forward and aft side (detail 19) with (detail 198 and 200) to attach (detail 19) to Subassembly E.
200	Nuts	Used on forward side of (detail 19) with (detail 198) to attach (detail 19) to Subassembly E.
215	Screw	Used to adjust center to center distance in right and left hand fitting areas.
240	Plate	Used to support and lift Subassembly E.
242	Adjusting Screws	Used to adjust (detail 288, 305, 306, 307 or 391) into right hand trunnion fitting.
243	Adjusting Screws	Used with (detail 242) to adjust (detail 288, 305, 306, 307 or 391) into right hand trunnion fitting.
244	Clamp	Used to Secure Subassembly E to (detail 20) and (detail 240).
245	Bolt	Used to secure (detail 244) to (detail 240).
248	Adjusting Screws	Used to adjust height of Subassembly E from (detail 240).
262	Bushing	Used to check for correct X plane location in left and right hand drag brace area.
263	Bushings	Used to check for correct X plane location in left and right hand trunnion area.
264	L-Pins	Used to secure (detail 192) and (detail 20) in drag brace area.
267	Screws	Used to lock in place (detail 192) and (detail 20).
272	Holding Pin Bushing	Used to check for correct X plane location in left hand trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
276	Sleeve Fitting	Installed into (detail 191 and 193), secured to (detail 279, 282, 293, 294, 295, 301, 302, 303, 393 or 394) with (detail 278).
278	Screws	Used to secure (detail 276) to (detail 279, 282, 293, 294, 295, 301, 302, 303, 393 or 394).

Figure 4. One Support Fitting, Replacement (Sheet 8)

Detail No.	Name	Function
279	Sleeve Fitting	Installed into (detail 191 and 193) secured to (detail 276) with (detail 278).
280	Caps	Used to take up the slack in Z plane in drag brace area. Secured with (detail 281 and 287).
281	Screw	Used to secure (detail 280) to left hand drag brace, 74A314612.
282	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
283	Cap	Used to take up the slack in Z plane in right hand trunnion fitting.
284	Screw	Used to secure (detail 283) to right hand trunnion fitting.
285	Nuts	Used to lock (detail 286) into (detail 192).
286	Plug	Used to line up left hand drag brace sleeve 74A314663, with (detail 285).
287	Screw	Used to secure (detail 280) and take up slack between 74A314612 and (detail 272) in left hand drag brace area.
288	Plug	Used to line up left hand trunnion sleeve 74A314395, with (detail 285).
289	Plug	Used to secure new fitting in either trunnion and/or drag brace area. Secured with (detail 290) and attaching it with (detail 280 or 292).
290	Screw	Used to secure (detail 289) and take up the slack between 74A314612 on left or right drag brace fitting or between 74A314235 on left or right trunnion fitting.
291	Plug	Used to line up left or right hand trunnion 74A314235, secured with (detail 290) attached with (detail 292).
292	Cap	Used to take up the slack in Z plane in left and right hand trunnion fitting area.
293	Sleeve Fitting	Installed into (detail 193), secured to (detail 276) with (detail 278).
294	Sleeve Fitting	Used in 1st oversize, installed into (detail 193), secured to (detail 276) with (detail 278).
295	Sleeve Fitting	Used in 2nd oversize, installed into (detail 193), secured to (detail 276) with (detail 278).

Figure 4. One Support Fitting, Replacement (Sheet 9)

Detail No.	Name	Function
296	Sleeve Fitting	Used in replacement support fitting in drag brace 74A314612, for reaming and spotfacing.
297	Plug	Used to line up left hand drag brace fitting 74A314612, secured with two (detail 285).
298	Plug	Used in 1st oversize, to line up left hand drag brace fitting 74A314612, secured with two (detail 285).
299	Plug	Used in 2nd oversize, to line up left hand drag brace fitting 74A314612, secured with two (detail 285).
301	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
302	Sleeve Fitting	Used in 1st oversize, installed-into (detail 191), secured to (detail 276) with (detail 284).
303	Sleeve Fitting	Used in 2nd oversize, installed into (detail 191) secured to (detail 276) with (detail 284)
304	Sleeve Fitting	Used in replacement support fitting in trunnion 74A314395, for reaming and spotfacing
305	Plug	Used to line up left hand trunnion fitting 74A314235, secured with two (detail 285).
306	Plug	Used in 1st oversize, line up left hand trunnion fitting 74A314235, secured with two (detail 285).
307	Plug	Used in 2nd oversize, line up left hand trunnion fitting 74A314235, secured with two (detail 285).
309	Clamp Assemblies	Used to secure 74A314612 and 74A314619 longeron.
310	Nuts	Used to tighten up (detail 309) in trunnion and drag brace area.
311	Jacks	Used to take up slack between (detail 309), 74A314612 and 74A314619 longeron.
312	Screws	Used to attach (detail 313, 314, 315 and 316) to Subassembly E.
313	Block	Attached to (detail 193) and used as support for (detail 309).
314	Block	Attached to (detail 192) and used as support for (detail 309).
315	Block	Attached to (detail 190) and used as support for (detail 309).

Figure 4. One Support Fitting, Replacement (Sheet 10)

Detail No.	Name	Function
316	Block	Attached to (detail 191) and used as support for (detail 309).
317	Retaining Screws	Used to secure left and right hand longeron 74A314612 to Subassembly E.
318	Jack	Used to help secure right hand longeron 74A314612 to Subassembly E.
319	Cap Screw	Used to attach (detail 24) to (detail 193).
320	Jack	Used to help secure left hand longeron 74A314612 to Subassembly E.
321	Cap Screw	Used to attach (detail 25) to (detail 192).
322	Retaining Screws	Used to secure left and right hand trunnion support 74A314235 to Subassembly E.
323	Jack	Used to help secure left hand trunnion support 74A314235 to Subassembly E.
324	Cap Screw	Used to attach (detail 26) to (detail 190).
325	Jack	Used to help secure right hand trunnion support 74A314235 to Subassembly E.
326	Cap Screw	Used to attach (detail 27) to (detail 191).
383	Sleeve Fitting	Used in place of (detail 293) if it will not install in drag brace fitting.
384	Sleeve Fitting	Used in 1st oversize, in place of (detail 294) if it will not install in drag brace fitting.
385	Sleeve Fitting	Used in 2nd oversize, in place of (detail 295) if it will not install in drag brace fitting.
386	Sleeve Fitting	Used in replacement support fitting in drag brace 74A314612, for reaming and spotfacing.
387	Sleeve Fitting	Used in place of (detail 301) if it will not install in trunnion fitting.
388	Sleeve Fitting	Used in 1st oversize, in place of (detail 302) if it will not install in trunnion fitting.
389	Sleeve Fitting	Used in 2nd oversize, in place of (detail 303) if it will not install in trunnion fitting.

Figure 4. One Support Fitting, Replacement (Sheet 11)

Detail No.	Name	Function
390	Sleeve Fitting	Used in replacement support fitting in trunnion 74A314395 for reaming and spotfacing.
391	Plug	Used in 3rd oversize, line up left hand trunnion fitting 74A314235, secured with two (detail 285).
393	Sleeve Fitting	Used in 3rd oversize, installed into (detail 191), secured to (detail 276) with (detail 284).
394	Sleeve Fitting	Used in 3rd oversize, installed into (detail 193), secured to (detail 276) with (detail 278).
395	Plug	Used in 3rd oversize, to line up left hand drag brace fitting 74A314612, secured with two (detail 285).
396	Sleeve Fitting	Used in place of (detail 394) if it will not install in drag brace fitting.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
550	Lift Platform	Used to lift Subassembly E up or down.

Figure 4. One Support Fitting, Replacement (Sheet 12)

11. TRUNNION SUPPORT FITTING REAMING. Figure 5.**12. SETUP.****NOTE**

Left and right procedures the same.

a. Scale span between left and right hand trunnion support fittings using a bar micrometer (detail 237) of RE374314235-1. See trunnion bearing sleeve installation nominal size, WP072 00. Dimension taken to be used for setting spotfacer in operation, this WP.

b. On Subassembly L, push silver button (detail 434) to active the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn Lift knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 5, detail F.

c. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support fitting, 74A314325.

d. Install sleeve fitting (detail 304) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 304), install sleeve fitting (detail 390), figure 5, detail A.

e. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand drag brace support fitting, 74A314612.

f. Install sleeve fitting (detail 296) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 296), install sleeve fitting (detail 386), figure 5, detail B.

g. Place two L-pins (detail 264) in Nom position on plates (detail 192 and 193), figure 5, detail C.

h. Loosen bolt (detail 245), clamp (detail 244) four places that are positioned on plate (detail 240).

i. Use adjusting screws (detail 242, 243 and 248) four places so as to engage sleeve fitting (detail 304) or (detail 390) into right hand trunnion support fitting 74A314235, (detail 296) or (detail 386) into right hand drag brace support fitting, 74A314612, figure 5, detail C.

j. If center to center is off in right hand drag brace support fitting 74A314612, pull L-pins (detail 264) on each side of Subassembly E. Loosen four screws (detail 267) on each side of Subassembly E. Adjust center distance by turning screw (detail 215) on each side of Subassembly E, figure 5, detail C, either by tightening or loosening until sleeve fitting (detail 296) or (detail 386) can be engaged into bearing sleeve 74A314663 or drag brace support fitting 74A314612, figure 5, detail B.

NOTE

Make sure that spacing is within ± 0.030 . If not, engineering disposition has to be obtained for out of dimension repair.

k. Install L-pins (detail 264) into adjustment hole from -0.030 to +0.030 on each side of Subassembly E based upon if forward or aft adjustments was made, figure 5, detail C.

l. Torque screws (detail 267) four places on each side of Subassembly E to 60 ft lbs and clamp welded assembly (detail 20) with clamp (detail 244) with bolt (detail 245) four places, figure 5, detail C.

m. Install plug (detail 300) into 2.751 diameter hole in plate (detail 192) at left hand drag brace support fitting, 74A314612. Secure plug (detail 300) by locking it in place with two nuts (detail 285), figure 5, detail B.

n. Install bushing (detail 262) into plate (detail 192) and holding pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left hand drag brace support fitting area, figure 5, detail B.

o. Install bushing (detail 262) into plate (detail 193), figure 5, detail B.

p. Install bushing (detail 263) and pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left hand trunnion support fitting area, figure 5, detail A.

q. Install bushing (detail 263) into plate (detail 191), figure 5, detail A.

r. Install Subassembly F onto both sides of Subassembly E by pinning it with two L-pins (detail 178).

s. Swing Subassembly F up into the nose landing gear bay, then pin support (detail 23) with two L-pins (detail 178) on both sides of Subassembly E, figure 1, detail E.

t. Check for correct X plane location, equal feel within ± 0.030 in nose landing gear bay at 74314208 plates by inserting 0.250 inch feeler gage between L-brackets (detail 176) and 74A314208 plate on right side and between bushing (detail 177) and 74A314208 plates on left side, figure 1, detail E.

u. Check for correct X plane location, equal feel within ± 0.030 at 74A314235 trunnion support fitting area, by inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support fitting, right side and between bushing (detail 272) and 74A314235 trunnion support fitting on left side, figure 5, detail A.

v. If alignment check fails to meet the requirements at 74A314235 trunnion support fitting, shim as required between plate (detail 191) and sleeve fitting (detail 304) or (detail 390), figure 5, detail A.

w. Check for correct X plane location, equal feel within ± 0.030 at 74A314612 drag brace support fitting area, by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support fitting, right side and between holding pin bushing (detail 272) and 74A314612 drag brace support fitting on the left side, figure 5, detail B.

x. If alignment check fails to meet the requirements at 74A314612 drag brace support fitting, adjust plug (detail 300) by loosening or tightening nuts (detail 285) and/or shimming as required between plate (detail 193) and sleeve fitting (detail 296) or (detail 386), figure 5, detail B.

y. Secure plate (detail 191) to trunnion support fitting, installing cap (detail 283) by attaching it with screw (detail 284), figure 5, detail A.

z. Secure plate (detail 193) to right hand drag brace support fitting, by installing cap (detail 280) and attaching it with screw (detail 281), figure 5, detail B.

aa. Secure plate (detail 192) to left hand drag brace support fitting, by installing cap (detail 280) and attaching it with screw (detail 287), figure 5, detail B.

ab. Secure Subassembly E.

(1) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 323), figure 1, detail G.

(2) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 325), figure 1, detail G.

(3) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 318), figure 1, detail H.

(4) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 320), figure 1, detail H.

(5) On left side of longeron 74A314619, attach block (detail 315) to plate (detail 190) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619, with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(6) On right side of longeron 74A314619, attach block (detail 316) to plate (detail 191) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619, with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(7) On right side of longeron 74A314612, attach block (detail 313) to plate (detail 193) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619, with clamp assembly

(detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(8) On left side of longeron 74A314612 attach block (detail 314) to plate (detail 192) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619, with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(9) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 1, detail F.

ac. Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 5, detail C.

ad. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in detail C. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404).

ae. Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

af. On Subassembly L, turn LIFT knob switch to PARK position, figure 5, detail F.

ag. Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

ah. Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 191) locking it in place with Subassembly A.



Make sure hoses (detail 354) are connected to proper inlets.

ai. Connect hoses (detail 354) to motor (detail 331).

aj. Do reaming procedure, this WP.

13. REAMING.

NOTE

Left and right procedures the same.

a. Slide Subassembly A as far as possible to the left side of Subassembly E and still clear plate (detail 190).

b. On Subassembly L, turn LIFT knob switch to PARK position, figure 5, detail F.

c. Remove Subassembly R from bracket (detail 43) which is located on right hand side of tool frame.

d. Install Subassembly R through lower 4.00 inch diameter hole in plate (detail 191) locking it in place with Subassembly A.

e. Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 5, detail C.

f. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in detail C. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404).

g. Feed Subassembly A, as far as possible to the right hand side using feed from Subassembly H, figure 5, detail C.

h. Mount driver, SPT6-RE374314235TD into Subassembly A and lock in place with two set screws (detail 158), figure 5, detail D and E.

i. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A.

j. Pivot Subassembly A forward to gain access to install bushing (detail 270) in upper portion of plate (detail 190).

k. Install stop shoulder (detail 382) to hold bushing (detail 270) in place by attaching stop shoulder (detail 382) with screw (detail 271), figure 5, detail R.

l. Insert driver, SPT6-RE374314235TD into bushing (detail 270) and against bottom of bearing sleeve 74A314395, figure 5, detail D.

(1) Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 5, detail K.

(2) Install reamer, SPT7-RE374314235TD between plate (detail 190) and left hand trunnion support fitting 74A314235, figure 5, detail D.

(3) Slide reamer, SPT7-RE374314235TD onto driver, SPT6-RE374314235TD and rotate 90° to lock it in place, figure 5, detail E.

(4) On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position. Turn POWER FEED knob switch to LH, figure 5, detail F.

(5) Feed reamer, SPT7-RE374314235TD into hole in left hand trunnion support fitting, 74A314235 and ream to 2.062 diameter, figure 5, detail D.

(6) On Subassembly L, turn SPINDLE knob switch to OFF position, figure 5, detail F.

(7) Back reamer, SPT7-RE374314235TD out of hole in left hand trunnion support fitting, 74A314235 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 5, detail F.

(8) Unlock reamer, SPT7-RE374314235TD by rotating 90° and slide it between plate (detail 190) and left hand trunnion support fitting 74A314235, figure 5, detail D and E.

(9) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 5, detail K.

(10) Pivot Subassembly A forward to gain access to remove driver, SPT6-RE374314235TD from bushing (detail 270).

(11) Rotate Subassembly A back to it's upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 5, detail K.

(12) Remove driver, SPT6-RE374314235TD from Subassembly A by removing two set screws (detail 158) and slide it between plate (detail 190) and left hand trunnion support fitting 74A314235, figure 5, detail D.

m. Inspect diameter of bore/reamed hole in trunnion fitting 74A314235 to 2.062 diameter with an inside caliper micrometer.



Dry Cleaning Solvent, P-D-680, Type II

25

n. Clean diameter surface of bore/reamed hole in trunnion support fitting 74A314235, using dry cleaning solvent.

o. Wipe and dry with clean dry cheesecloth.

p. Set up, Subassembly E before removing.

(1) Attach welded assembly (detail 45) to lift platform (detail 550) by aligning it up with guide pin (detail 614) located on forward end of lift platform (detail 550), both sides. Secure it by installing knob (detail 599), figure 5, detail M.

(2) Attach guide (detail 601) to dovetail slide (detail 606) using two cap screws. Attach dovetail slide

(detail 606) to welded assembly (detail 45) with washer (detail 423) and cap screw, figure 5, detail M.

(3) Align guide (detail 604) to dovetail slide (detail 607), by installing two bullet nose dowel pins (detail 608) into bullet nose bushings (detail 609). Secure guide (detail 604) by attaching it with knob (detail 605), figure 5, detail N.

(4) Insert shaft (detail 602) through lower bushing (detail 261) attached to plate (detail 192 and 193).

q. Remove Subassembly E.

(1) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 1, detail F.

(2) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(3) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(4) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(5) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(6) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace support fitting 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 1, detail H.

(7) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace support fitting, 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 1, detail H.

(8) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion support fitting 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 1, detail G.

(9) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion support fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 1, detail G.

(10) On left hand side of drag brace support fitting 74A314612, remove screw (detail 287) and cap (detail 280) from plug (detail 300), figure 5, detail B.

(11) On right hand side of drag brace support fitting 74A314612, remove screw (detail 281) and cap (detail 280) from sleeve fitting (detail 296) or (detail 386), figure 5, detail B.

(12) On right side of trunnion support fitting 74A314235, remove screw (detail 284) and cap (detail 283) from sleeve fitting (detail 304) or (detail 390), figure 5, detail A.

(13) On left side of drag brace support fitting 74A314612, remove two nuts (detail 285) holding plug (detail 300) in 2.751 diameter hole in plate (detail 192), figure 5, detail B.

(14) In left side drag brace support: fitting area 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 5, detail B.

(15) In left side trunnion support fitting area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 5, detail A.

(16) Disconnect hoses (detail 354) from motor (detail 331).

(17) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 190).

(18) On Subassembly L, turn LIFT knob switch to PARK position, figure 5, detail F.

(19) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 191).

(20) Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame.



Make sure hoses (detail 354) are connected to proper inlets.

(21) Connect hoses (detail 354) to motor (detail 331).

(22) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335). Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334), figure 5, detail C. Remove Subassembly H through lower hole in plate (detail 192), figure 5, detail C. Attach Subassembly H to left side of tool frame.

(23) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 5, detail F.

(24) Check that shaft (detail 602) is setting securely onto guide (detail 601) on both sides of lift platform (detail 550), forward end. If not, loosen or tighten top cap screw (detail 667), on welded assembly (detail 45) to raise or lower dovetail slide (detail 606) until shaft (detail 602) is securely setting on guide (detail 601).

(25) On the aft end of lift platform (detail 550) check to make sure that shaft (detail 285) is setting securely onto guide (detail 604) on both sides of lift platform (detail 550). If not, loosen or tighten top outboard cap screw (detail 667), on plate (detail 603) to raise or lower dovetail slide (detail 607) until shaft (detail 285) is securely setting on guide (detail 607).

(26) Do cold working trunnion, this WP.

14. COLD WORKING TRUNNION. Hydraulic Pump Assembly, Pneumatic, 74A110323-1001 is used to energize ENERPAC RCH #603 cylinder during cold working per (A1-F18AC-SRM-200, WP004 18).

NOTE

Left and right procedures the same.

a. Attach plate (detail 11) to Subassembly E with cap screw (detail 239), figure 5, detail G.

b. Slide Subassembly A on to plate (detail 11), figure 5, detail G.

c. Place two o'rings (detail 236) onto sleeve (detail 116). Slide sleeve (detail 116) inside coupling (detail 114). Screw coupling (detail 114) into Subassembly A. Screw cap (detail 115) onto coupling (detail 114), figure 5, detail P.

d. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until it is in line with hole opening in trunnion support fitting, 74A314325. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 5, detail F.

e. Remove nut (detail 113) from shaft (detail 104).

f. Install ENERPAC RCH #603 cylinder onto Subassembly A and secure it by tightening nut (detail 113). Support ENERPAC RCH #603 by placing Subassembly J under it and placing it on upper face on right hand side of fixture (detail 31).

g. Adjust the height of Subassembly J by loosening t-screw (detail 13) by either raising or lowering shaft (detail 216) so that the support fitting (detail 220) is supporting the hydraulic cylinder, figure 5, detail G.

h. Loosen nut (detail 111) to the end of bolt (detail 110). Insert split sleeve, TD761G-35320 SPL from outboard side into trunnion support fitting 74A314235, figure 5, detail G.

i. Insert mandrel, TD761U-3 through split sleeve, TD761G-34018 SPL and screw onto bolt (detail 110). Tighten up nut (detail 111) to take up slack, figure 5, detail G.

j. Energize ENERPAC RCH #603 cylinder to pull mandrel, TD761U-3 through split sleeve, TD761G-34018 SPL into trunnion support fitting 74A314235, figure 5, detail G.

k. Check hole diameter in trunnion support fitting 74A314235, using GO/NO GO plug gage, TD216G5-22.

l. Remove Subassembly A.

(1) Loosen nut (detail 111) and unscrew mandrel, TD761U-4 from bolt (detail 110), figure 5, detail G.

(2) Remove split sleeve, TD761G-34018 SPL from trunnion support fitting 74A314235, figure 5, detail G.

(3) Remove nut (detail 113) from shaft (detail 104) and remove ENERPAC RCH #603 cylinder. Screw nut (detail 113) onto shaft (detail 104), figure 5, detail G.

(4) On Subassembly L, turn LIFT knob switch to DRIVE to activate lift cycle. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DOWN and lower Subassembly A until it clears trunnion support fitting 74A314235, figure 5, detail F.

(5) Slide Subassembly A from plate (detail 11), figure 5, detail G.

(6) Remove plate (detail 11) from Subassembly E by removing cap screw (detail 239), figure 5, detail G.

(7) Remove Subassembly J from fixture (detail 31), figure 5, detail G.

(8) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to its lowest position, figure 5, detail F.

(9) Do support second pass reaming after cold working, this WP.

15. SUPPORT SECOND PASS REAMING AFTER COLD WORKING.

a. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn Lift knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 5, detail F.

b. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support fitting, 74A314325. Install sleeve fitting (detail 304) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 304), install sleeve fitting (detail 390), figure 5, detail A.

c. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand drag brace fitting, 74A314612. Install sleeve fitting (detail 296) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 296), install sleeve fitting (detail 386), figure 5, detail B.

d. On left side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

e. On right side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

f. On left side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

g. Install plug (detail 300) into 2.751 diameter hole in plate (detail 192) at left hand drag brace support fitting, 74A314612. Secure plug (detail 300) by locking it in place with two nuts (detail 285), figure 5, detail B.

h. Secure plate (detail 193) to right hand drag brace support fitting 74A314612, by installing cap (detail 280) and attaching it with screw (detail 281), figure 5, detail B.

i. Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion support fitting 74A314325, between retaining screw (detail 322 and jack (detail 323), figure 1, detail G.

j. Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion support fitting 74A314325, between retaining screw (detail 322) and jack (detail 325), figure 1, detail G.

k. Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 318), figure 1, detail H.

l. Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 320), figure 1, detail H.

m. On left side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

n. On right side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

o. On left side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

p. On right side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

q. Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 1, detail F.

r. Ream trunnion support fitting.

(1) Feed Subassembly A as far as possible to the right side using feed from Subassembly H.

(2) Mount driver, SPT6-RE374314235TD into Subassembly A and lock in place with two set screws (detail 158), figure 5, detail H.

(3) Loosen upper two set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 5, detail A.

(4) Pivot Subassembly A forward to gain access to install bushing (detail 270) in upper portion of plate (detail 190).

(5) Install stop (detail 382) to hold bushing (detail 270) in place by attaching stop (detail 382) with screw (detail 271), figure 5, detail R.

(6) Insert driver, SPT6-RE374314235TD into bushing (detail 270) and position as far outboard as possible, figure 5, detail H.

(7) Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 5, detail A.

(8) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 5, detail C.

(9) Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in detail C. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404).

(10) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 191).

(11) On Subassembly L, turn LIFT knob switch to PARK position, figure 5, detail F.

(12) Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

(13) Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 191) locking it in place with Subassembly A.



Make sure hoses (detail 354) are connected to proper inlets.

(14) Connect hoses (detail 354) to motor (detail 331).

(15) Install reamer, SPT8-RE374314235TD between plate (detail 190) and left hand trunnion support fitting 74A314235, figure 5, detail H.

(16) Slide reamer, SPT8-RE374314235TD onto driver, SPT6-RE374314235TD and rotate 90° to lock it in place, figure 5, detail J.

(17) On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position. Turn POWER FEED knob switch to LH, figure 5, detail F.

(18) Power feed reamer, SPT8-RE374314235TD into hole in left hand trunnion support fitting, 74A314235 and ream to 2.1060 diameter, figure 5, detail H and J.

(19) On Subassembly L, turn SPINDLE knob switch to OFF position, figure 5, detail F.

(20) Back reamer, SPT8-RE374314235TD out of hole in left hand trunnion support fitting, 74A314235 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 5, detail F.

(21) Unlock reamer, SPT8-RE374314235TD by rotating 90° and slide it between plate (detail 190) and left hand trunnion support fitting 74A314235, figure 5, detail H and J.

(22) Inspect diameter of bore/reamed hole in trunnion fitting, 74A314235 to 2.1060 inch diameter with an inside caliper micrometer.



Dry Cleaning Solvent, P-D-680, Type II

25

(23) Clean diameter surface of bore/reamed hole in trunnion fitting 74A314235, using dry cleaning solvent. ■

(24) Wipe and dry with clean dry cheesecloth.

s. Support third pass reaming after cold working.

(1) Install reamer, SPT9-RE374314236TD between plate (detail 190) and left hand trunnion support fitting 74A314235, figure 5, detail H and J.

(2) Slide reamer, SPT9-RE374314236TD onto driver, SPT6-RE374314235TD and rotate 90° to lock it in place, figure 5, detail H and J.

(3) On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position. Turn POWER FEED knob switch to LH, figure 5, detail F.

(4) Power feed reamer, SPT9-RE374314235TD into hole in left hand trunnion support fitting, 74A374314 and ream to 2.1215 diameter, figure 5, detail H.

(5) On Subassembly L, turn SPINDLE knob switch to OFF position, figure 5, detail F.

(6) Back reamer, SPT9-RE374314235TD out of hole in left hand trunnion support fitting, 74A314235 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 5, detail F.

(7) Unlock reamer, SPT9-RE374314235TD by rotating 90° and slide it between plate (detail 190) and left hand trunnion support fitting 74A314235, figure 5, detail H.

(8) Remove driver, SPT6-RE374314235TD from Subassembly A by removing two set screws (detail 158) and slide it between plate (detail 190) and left hand trunnion support fitting 74A314235, figure 5, detail J.

(9) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A.

(10) Pivot Subassembly A forward to gain access to remove driver, SPT6-RE374314235TD from bushing (detail 270), figure 5, detail H.

(11) Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 5, detail A.

(12) Inspect diameter of bore/reamed hole in trunnion support fitting, 74A314235 to 2.1215 inch diameter with an inside caliper micrometer.

(13) Clean diameter surface of bore/reamed hole in trunnion support fitting 74A314235, using dry cleaning solvent.

(14) Wipe and dry with clean dry cheesecloth.

16. **SPOTFACING.** Spray mist coolant tank assembly RE874000002-1, is used during spotfacing per (A1-F18AC-SRM-200, WP004 16).

NOTE

Left and right procedures the same.

(1) Slide Subassembly A as far as possible to the right hand side of Subassembly E.

(2) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 5, detail K.

(3) Pivot Subassembly A forward to gain access to install shaft (detail 213) into bushing (detail 270) and against bottom of bearing sleeve 74A314395, figure 5, detail K.

(4) Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 5, detail K.

(5) From inboard side of Subassembly E, slide spacer (detail 214) onto shaft (detail 213) securing it with two set screws, figure 5, detail L.

(6) Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount shaft (detail 213) into Subassembly A and lock it in place with two set screws (detail 158), figure 5, detail K and L.

NOTE

Check cutter, SPT10-RE374314235TD for sharpness after each operation. Cutter may require sharpening.

(7) Slide cutter, SPT10-RE374314235TD between Subassembly E and left hand trunnion support fitting, 74A314235 onto shaft (detail 213). Rotate shaft (detail 213) 90° to lock it in place, figure 5, detail L.

(8) Install shim (detail 21) onto cutter, SPT10-RE374314235TD using retaining ring (detail 16) to lock it in place, figure 5, detail L.

(9) Set depth of spotfacer, SPT10-RE374314235TD according to the reading taken during paragraph 12, step a, with stop collar (detail 214), figure 5, detail L.

(10) On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position. Turn POWER FEED knob switch to L H, figure 5, detail F.

(11) Power assisted hand feed cutter, SPT10-RE374314235TD to spotface trunnion support fitting 74A314235, using dimension taking from trunnion support fitting reaming, this WP.

(12) Back cutter, SPT10-RE374314235TD from face of trunnion support fitting, 74A314235 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 5, detail F.

(13) Loosen two set screws attaching spacer (detail 214) onto shaft (detail 213), figure 5, detail L.

(14) Remove shaft (detail 213) from Subassembly A by removing two set screws (detail 158). Unlock cutter, SPT10-RE374314235TD by rotating 90° and slide it between plate (detail 190) and left hand trunnion support fitting 74A314235, figure 5, detail K.

(15) Slide spacer (detail 214) from shaft (detail 213), figure 5, detail L.

(16) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 5, detail L.

(17) Pivot Subassembly A forward to gain access to remove shaft (detail 213) from bushing (detail 270), figure 5, detail K.

(18) Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147).

(19) Remove shaft (detail 213) from Subassembly A by removing two set screws (detail 158) and slide it between plate (detail 190) and left hand trunnion support fitting 74A314235, figure 5, detail L.

a. Set up, Subassembly E before removing.

(1) Attach welded assembly (detail 45) to lift platform (detail 550) by aligning it up with guide pin (detail 614) located on forward end of lift platform (detail 550), both sides. Secure it by installing knob (detail 599), figure 5, detail M.

(2) Attach guide (detail 601) to dovetail slide (detail 606) using two cap screws. Attach dovetail slide (detail 606) to welded assembly (detail 45) with washer (detail 423) and cap screw, figure 5, detail M.

(3) Align guide (detail 604) to dovetail slide (detail 607), by installing two bullet nose dowel pins (detail 608) into bullet nose bushings (detail 609). Secure guide (detail 604) by attaching it with knob (detail 605), figure 5, detail N.

(4) Insert shaft (detail 602) through lower bushing (detail 261) attached to plate (detail 192 and 193).

b. Remove Subassembly E.

(1) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 1, detail F.

(2) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(3) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(4) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(5) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(6) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace support fitting, 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 1, detail H.

(7) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace support fitting, 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 1, detail H.

(8) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion support fitting, 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 1, detail G.

(9) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion support fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 1, detail G.

(10) On left hand side of drag brace support fitting 74A314612, remove screw (detail 287) and cap (detail 280) from plug (detail 300), figure 5, detail B.

(11) On right hand side of drag brace support fitting 74A314612, remove screw (detail 281) and cap (detail 280) from sleeve fitting (detail 296) or (detail 386), figure 5, detail B.

(12) On right side of trunnion support fitting 74A314235, remove screw (detail 284) and cap (detail 283) from sleeve fitting (detail 304) or (detail 390), figure 5, detail A.

(13) On left side of drag brace support fitting 74A314612, remove two nuts (detail 285) holding plug (detail 300) in 2.751 diameter hole in plate (detail 192), figure 5, detail B.

(14) In left side drag brace area 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 5, detail B.

(15) In left side trunnion support fitting area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 5, detail A.

(16) Disconnect hoses (detail 354) from motor (detail 331).

(17) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 190).

(18) On Subassembly L, turn LIFT knob switch to PARK position, figure 5, detail F.

(19) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 191).

(20) Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame.



Make sure hoses (detail 354) are connected to proper inlets.

(21) Connect hoses (detail 354) to motor (detail 331).

(22) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335). Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334), detail C. Remove Subassembly H through lower hole in plate (detail 192), detail C. Attach Subassembly H to left side of tool frame.

(23) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 5, detail F.

(24) Check that shaft (detail 602) is setting securely onto guide (detail 601) on both sides of lift platform (detail 550), forward end. If not, loosen or tighten

top cap screw (detail 667), on welded assembly (detail 45) to raise or lower dovetail slide (detail 606) until shaft (detail 602) is securely setting on guide (detail 601).

(25) On the aft end of lift platform (detail 550) check to make sure that shaft (detail 285) is setting securely onto guide (detail 604) on both sides of lift platform (detail 550). If not, loosen or tighten top outboard cap screw (detail 667), on plate (detail 603) to raise or lower dovetail slide (detail 607) until shaft (detail 285) is securely setting on guide (detail 607).

17. TRUNNION BEARING SLEEVE INSTALLATION, NOMINAL SIZE, 74A314395.

NOTE

Left and right procedures the same.

a. Attach support (detail 12) to Subassembly E with cap screw (detail 668) and washer (detail 669), WP023 02, figure 6, detail A.



Sealing Compound (Faying Sealant), MIL-S-83430, Type B-1/2

8

b. Install sleeve fitting (detail 127) into bearing sleeve 74A314395. Apply fillet seal around peripheral of bearing sleeve. For application of fillet seal (A1-F18AC-SRM-200, WP011 00).

c. Insert threaded stud (detail 128) with washer (detail 144) and nut (detail 143) through ENERPAC RCH #202 cylinder. Place on support (detail 12), WP023 02, figure 6, detail A.

d. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until threaded stud (detail 128) lines up with hole in trunnion support fitting 74A314235. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 5, detail F.

e. Insert threaded stud (detail 128) with washer (detail 144) and nut (detail 143) and ENERPAC RCH #202 cylinder through sleeve fitting (detail 127), WP023 02, figure 6, detail A.

f. Screw cap (detail 126) onto threaded stud (detail 128) from outboard side taking up the slack.

g. Energize cylinder to install bearing sleeve 74A314395-2001 into trunnion support fitting, 74A314235.

h. Unscrew cap (detail 126) from threaded stud (detail 128).

i. Slide threaded stud (detail 128) with washer (detail 144) and nut (detail 143) from sleeve fitting (detail 127), WP023 02, figure 6, detail A.

j. On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 5, detail F.

k. Remove threaded stud (detail 128), washer (detail 144) and nut (detail 143) from ENERPAC RCH #202 cylinder.

l. Remove ENERPAC RCH #202 cylinder from support (detail 12), WP023 02, figure 6, detail A.

m. Remove cap screw (detail 668) and washer (detail 669) holding support (detail 12) to Subassembly E. Remove support (detail 12) from Subassembly E, WP023 02, figure 6, detail B.



Dry Cleaning Solvent, P-D-680, Type II

25

n. Clean diameter surface of bore/reamed hole in trunnion support fitting 74A314235, using dry cleaning solvent.

o. Wipe and dry with clean dry cheesecloth.

NOTE

Measure span between left and right trunnion bearing sleeve heads using a bar micrometer (detail 237) of RE374314235-1. Dimension taken to be used for setting spotfacer in operation. Span between bearing sleeve heads should be 13.215 ± 0.015 after machining operations.

p. Reinstall Subassembly E.

(1) On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 5, detail F.

(2) Install holding pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left hand trunnion support fitting area, figure 5, detail A.

(3) Install holding pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left hand drag brace support fitting area, figure 5, detail B.

(4) Secure plate (detail 191) to trunnion support fitting 74A314235, by installing cap (detail 283) and attaching it with screw (detail 284), figure 5, detail A.

(5) Slide plug (detail 300) through 2.751 diameter hole in plate (detail 192) until it engages left hand drag brace support fitting, 74A314235. Secure plug (detail 300) by locking it in place with two nuts (detail 285), figure 5, detail B.

(6) Secure left hand drag brace support fitting 74A314612, by installing cap (detail 280) and attaching it with screw (detail 287), figure 5, detail B.

(7) Secure plate (detail 193) to right hand drag brace support fitting 74A314612, by installing cap (detail 280) and attaching it with screw (detail 281), figure 5, detail B.

(8) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 323), figure 1, detail G.

(9) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 325), figure 1, detail G.

(10) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 318), figure 1, detail H.

(11) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 320), figure 1, detail H.

(12) On left side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(13) On right side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(14) On left side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(15) On right side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(16) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 1, detail F.

(17) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), detail C. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in detail C. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404).

(18) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

(19) On Subassembly L, turn LIFT knob switch to PARK position, figure 5, detail F.

(20) Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

(21) Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 191) locking it in place with Subassembly A.



Make sure hoses (detail 354) are connected to proper inlets.

(22) Connect hoses (detail 354) to motor (detail 331).

q. Check inside diameter of 74A314395, bearing sleeve.

(1) Feed Subassembly A as far as possible to the right hand side using feed from Subassembly H.

(2) Install indicator (detail 219) with bushing (detail 218) locking it in place with two set screws (detail 158), WP023 02, figure 7, detail A.

(3) Install blade (detail 220) onto indicator (detail 219), WP023 02 figure 7, detail A.

(4) On Subassembly L, push silver knob (detail 434) to activate the system. Turn SPINDLE knob switch to FWD LH position and turn FEED knob switch to MANUAL position, figure 5, detail F.

(5) Sweep inside diameter of left hand trunnion bearing sleeve with indicator (detail 219), WP072 00, figure 7, detail A.

(6) Indicator (detail 219) should read within 0.003 to verify bearing sleeve will clean up.

(7) If bearing sleeve will not clean up, do trunnion sleeve removal and installation, nominal size procedures, WP023 02.

(8) On Subassembly L, turn FEED knob switch to POWER position. Turn SPINDLE knob switch to OFF position, figure 5, detail F.

(9) Remove indicator (detail 219) from bushing (detail 218) by removing two screws (detail 158), WP023 02, figure 7, detail A.

(10) Do trunnion sleeve reaming procedure, this WP.

18. TRUNNION SLEEVE REAMING.

NOTE

Left and right procedures the same.

a. Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 5, detail C.

b. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position shown in detail C. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404).

c. Feed Subassembly A, as far as possible to the right hand side using feed from Subassembly H.

d. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 5, detail K.

e. Pivot Subassembly A forward to gain access to install bushing (detail 270) in upper portion of plate (detail 190).

f. Install stop shoulder (detail 382) to hold bushing (detail 270) in place by attaching stop shoulder (detail 382) with screw (detail 271), figure 5, detail R.

g. Insert driver, SPT6-RE374314235TD into bushing (detail 270) and against bottom of bearing sleeve 74A314395, figure 5, detail H.

h. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 7, detail K.

i. Install reamer, SPT23-RE374314235TD between plate (detail 190) and left hand trunnion support fitting 74A314235, WP023 02, figure 7, detail M.

j. Slide reamer, SPT23-RE374314235TD onto driver, SPT6-RE374314235TD and rotate 90° to lock it in place, WP072 00, figure 7, detail M.

k. On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position. Turn POWER FEED knob switch to LH, detail F.



Do not feed too far past relief in bearing sleeve to prevent damage to bottom of bearing sleeve.

l. Power feed reamer, SPT23-RE374314235TD into bearing sleeve 74A314395 to ream inside diameter to 1.8750 +0.0016 -0.0000 diameter, WP023 02, figure 7, detail M.

m. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 5, detail F.

n. Back reamer, SPT23-RE374314235TD out of bearing sleeve 74A314395 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 5, detail F.

o. Remove reamer, SPT23-RE374314235TD from between inboard side of trunnion support fitting 74A314235 and Subassembly E, WP072 00, figure 7, detail M.

p. Remove driver, SPT6-RE374314235TD from Subassembly A by removing two set screws (detail 158) and slide it between plate (detail 190) and left hand trunnion support fitting 74A314235, WP072 00, figure 7, detail M.

q. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A. Pivot Subassembly A forward to gain access to remove driver, SPT6-RE374314235TD from bushing (detail 270), WP023 02, figure 7, detail M.

r. Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 5, detail K.

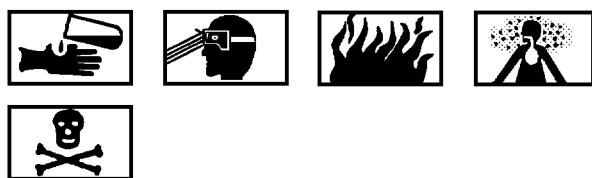
s. Do trunnion spotfacing procedures, this WP.

19. **TRUNNION SPOTFACING.** Spray mist coolant tank assembly RE874000002-1, is used during spotfacing per (A1-F18AC-SRM-200, WP004 16).

NOTE

Left and right procedures the same.

a. Slide Subassembly A as far as possible to the right hand side of Subassembly E.



Beryllium

b. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 5, detail K.

c. Pivot Subassembly A forward to gain access to install shaft (detail 213) into bushing (detail 270) and against bottom of bearing sleeve 74A314395, figure 5, detail K.

d. Attach holding stop (detail 382) to plate (detail 192) using screw (detail 271), figure 5, detail R.

e. Rotate Subassembly A back to its up right position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 5, detail K.

f. From inboard side of Subassembly E, slide spacer (detail 214) onto shaft (detail 213) securing it with two set screws, figure 5, detail K and L.

g. From inboard side of Subassembly E, slide spacer (detail 214) onto shaft (detail 213) securing it with two set screws, figure 5, detail K.

h. Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334), figure 5, detail C.

i. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position shown in, detail C. Secure shaft end of Subassembly H with clevis (detail 335) using shoulder screw (detail 404).

j. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount shaft (detail 213) into Subassembly A and lock it in place with two set screws (detail 158), figure 5, detail L.

NOTE

Check cutter, SPT10-RE374314235TD for sharpness after each operation. Cutter may require resharpening.

k. Slide cutter, SPT10-RE374314235TD between Subassembly E and left hand trunnion support fitting, 74A314235 onto shaft (detail 213). Rotate shaft (detail 213) 90° to lock it in place, figure 5, detail K.

l. Install shim (detail 21) onto cutter, SPT 10-RE374314235TD using retaining ring (detail 16) to lock it in place, figure 5, detail L.

m. Set depth of spotfacer, SPT10-RE374314235TD according to the reading taken during paragraph 12, step a, with stop collar (detail 214), figure 5, detail L.

n. Slide Subassembly A as far as possible to the left hand side of Subassembly E and still clear plate (detail 190).

o. On Subassembly L, turn LIFT knob switch to PARK position, figure 5, detail F.

p. Remove motor (detail 331) from bracket (detail 43) which is located on right hand side of tool frame.

q. Install motor (detail 331) through lower 4.00 inch diameter hole in plate (detail 191) locking it in place with Subassembly A.



Make sure hoses (detail 354) are connected to proper inlets.

r. Connect hoses (detail 354) to motor (detail 331).

s. On Subassembly L, turn SPINDLE knob switch to FWD LH position and turn FEED knob switch to POWER position. Turn POWER FEED to L.H. position, figure 5, detail F.

t. Power assisted hand feed cutter, SPT10-RE374314235TD to spotface bearing sleeve, 74A314395, using dimension taken from trunnion support fitting reaming, this WP.

u. Back cutter, SPT10-RE374314235TD from face of bearing sleeve, 74A314395 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 5, detail F.

v. Loosen two set screws attaching spacer (detail 214) onto shaft (detail 213), figure 5, detail L.

w. Unlock retaining ring (detail 16) and remove it and shim (detail 25) from cutter, SPT10-RE374314235TD, figure 5, detail L.

x. Rotate cutter, SPT 10-RE374314235TD 90° on shaft (detail 213) and remove it between drag brace support fitting, 74A314612 and Subassembly E, figure 5, detail K and L.

y. Remove shaft (detail 213) from Subassembly A by removing two set screws (detail 158). Unlock cutter, SPT10-RE374314235ED by rotating 90° and slide it between plate (detail 190) and left hand trunnion support fitting 74A314235, figure 5, detail K.

z. Slide spacer (detail 214) from shaft (detail 213), figure 5, detail L.

aa. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A. Pivot Subassembly A forward to gain access to remove shaft (detail 213), figure 5, detail K.

ab. Rotate Subassembly A back to its up right position. Install (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 5, detail K.

ac. Remove Subassembly E.

(1) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 1, detail F.

(2) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(3) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(4) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(5) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(6) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace support fitting 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 1, detail H.

(7) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace support fitting, 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 1, detail H.

(8) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion support fitting, 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 1, detail G.

(9) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion support fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 1, detail G.

(10) On left hand side of drag brace support fitting 74A314612, remove screw (detail 287) and cap (detail 280) from plug (detail 300), figure 5, detail B.

(11) On right hand side of drag brace support fitting 74A314612, remove screw (detail 281) and cap (detail 280) from sleeve fitting (detail 296) or (detail 386), figure 5, detail B.

(12) On right hand side of trunnion support fitting 74A314235, remove screw (detail 284) and cap (detail 283) from sleeve fitting (detail 304) or (detail 390), figure 5, detail A.

(13) On left hand side of drag brace support fitting 74A314612, remove two nuts (detail 285) holding plug (detail 300) in 2.751 diameter hole in plate (detail 192), figure 5, detail B.

(14) In left hand drag brace support fitting area 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 5, detail B.

(15) In left hand trunnion support fitting area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 5, detail A.

(16) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 5, detail F.

(17) If repair is complete, do locating fixture removal, WP072 00.

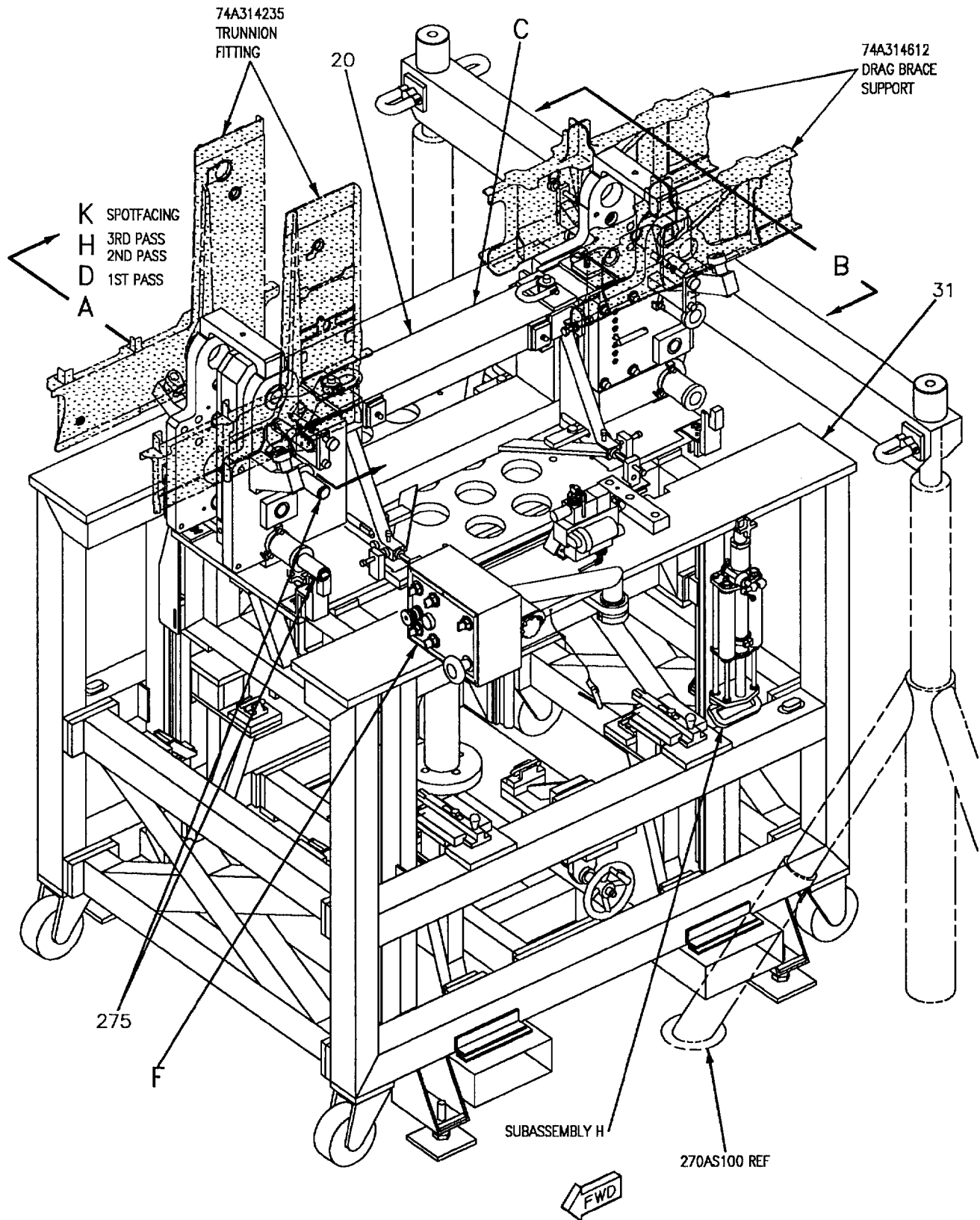


Figure 5. Trunnion Support Fitting Reaming (Sheet 1)

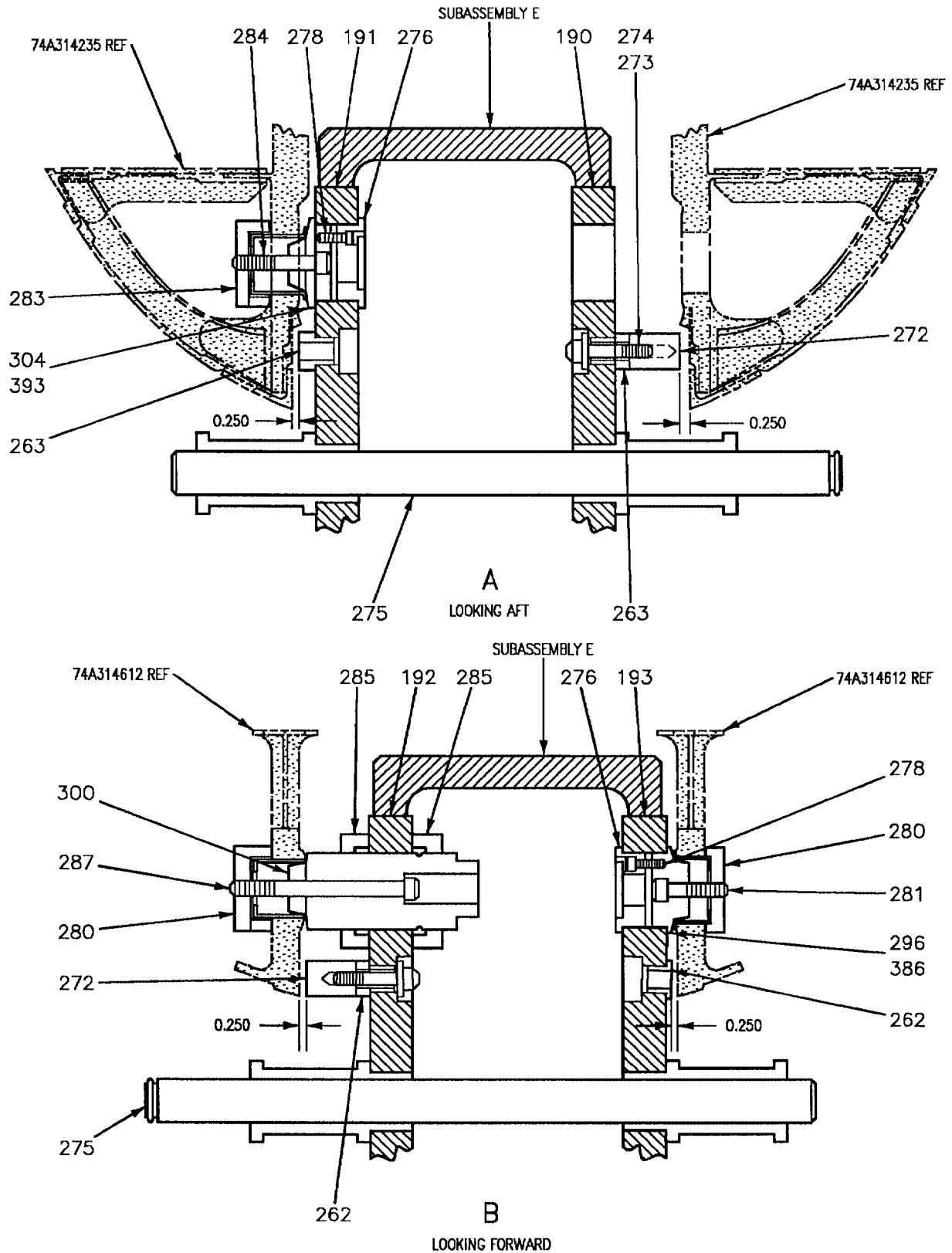


Figure 5. Trunnion Support Fitting Reaming (Sheet 2)

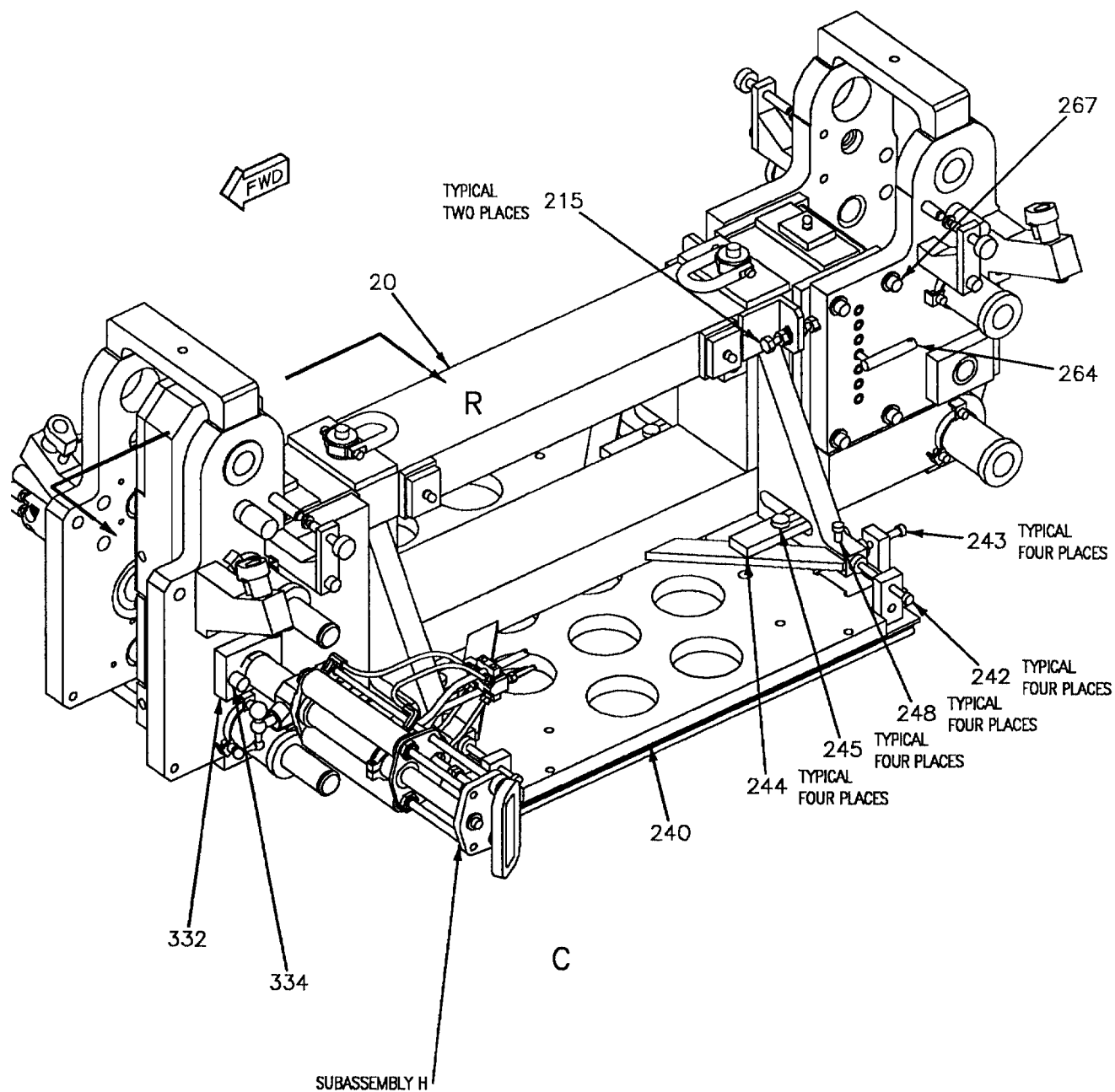


Figure 5. Trunnion Support Fitting Reaming (Sheet 3)

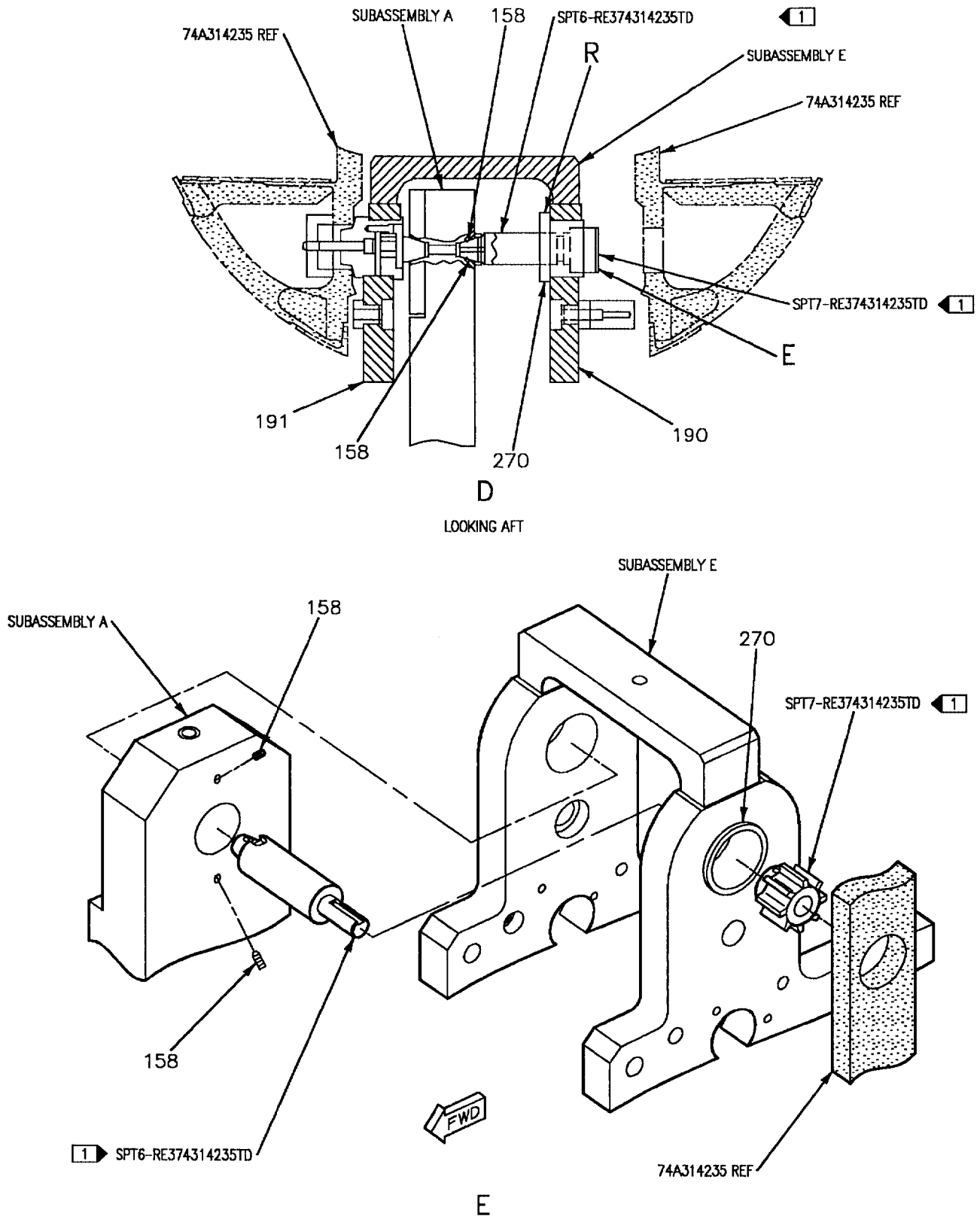


Figure 5. Trunnion Support Fitting Reaming (Sheet 4)

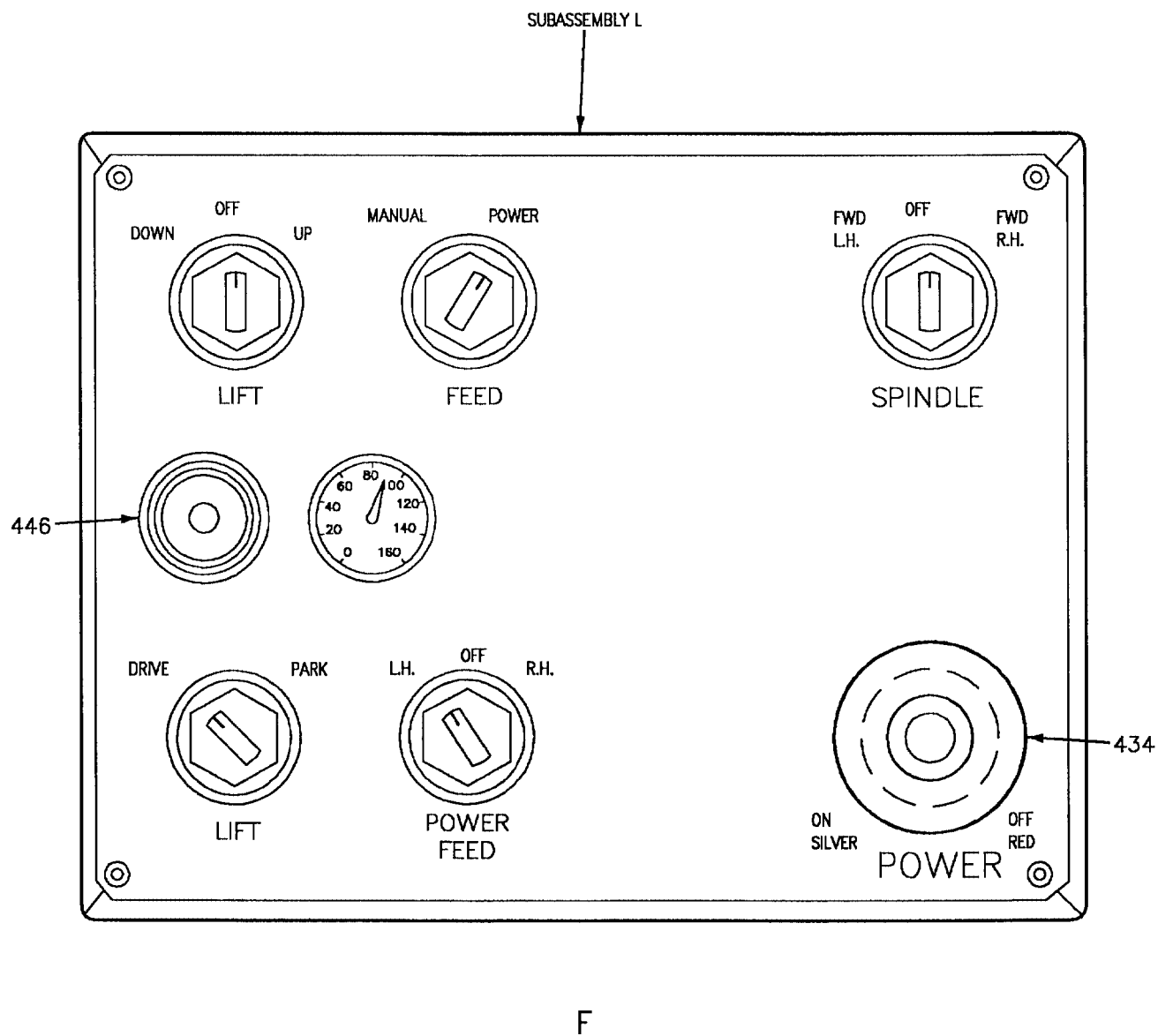


Figure 5. Trunnion Support Fitting Reaming (Sheet 5)

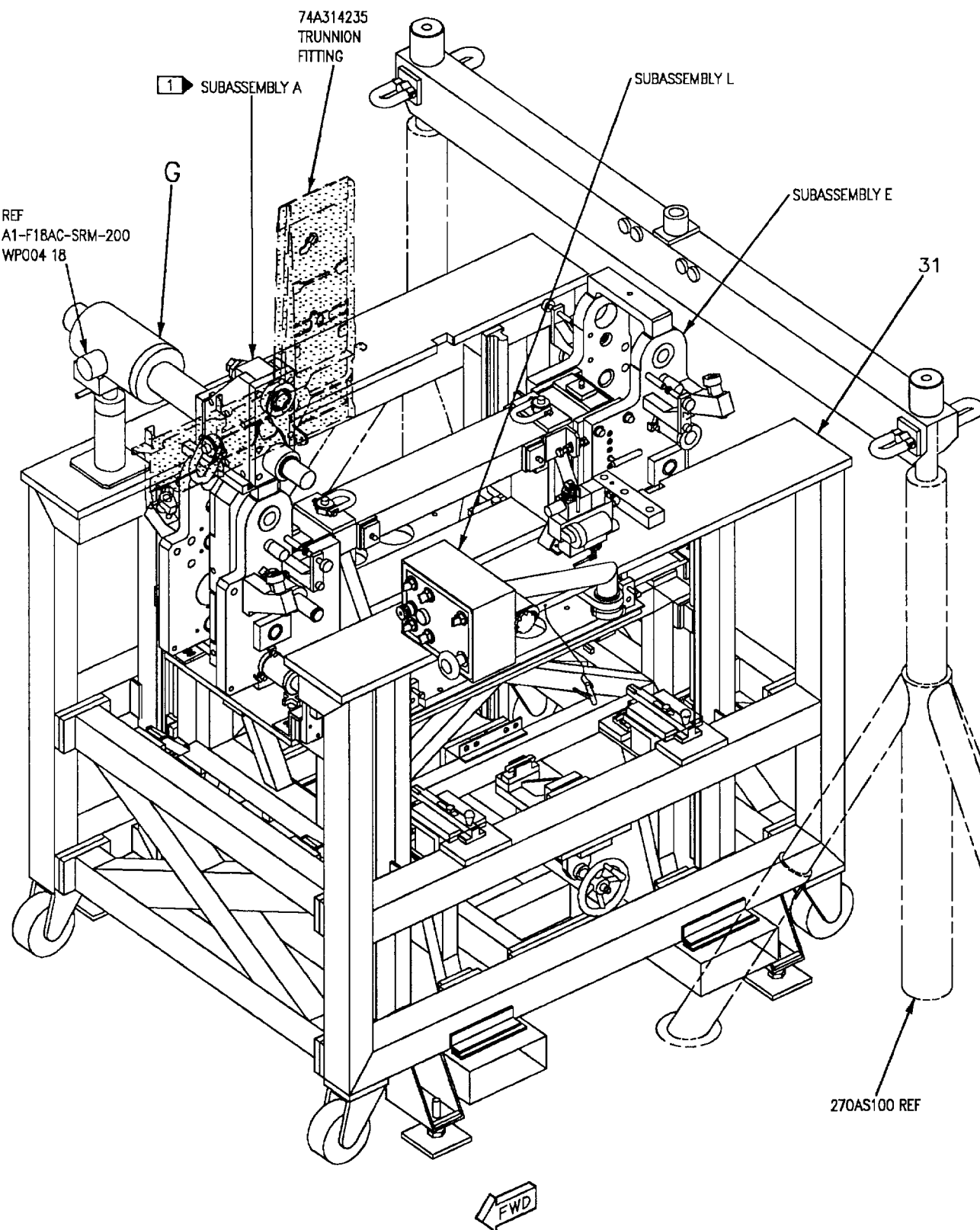


Figure 5. Trunnion Support Fitting Reaming (Sheet 6)

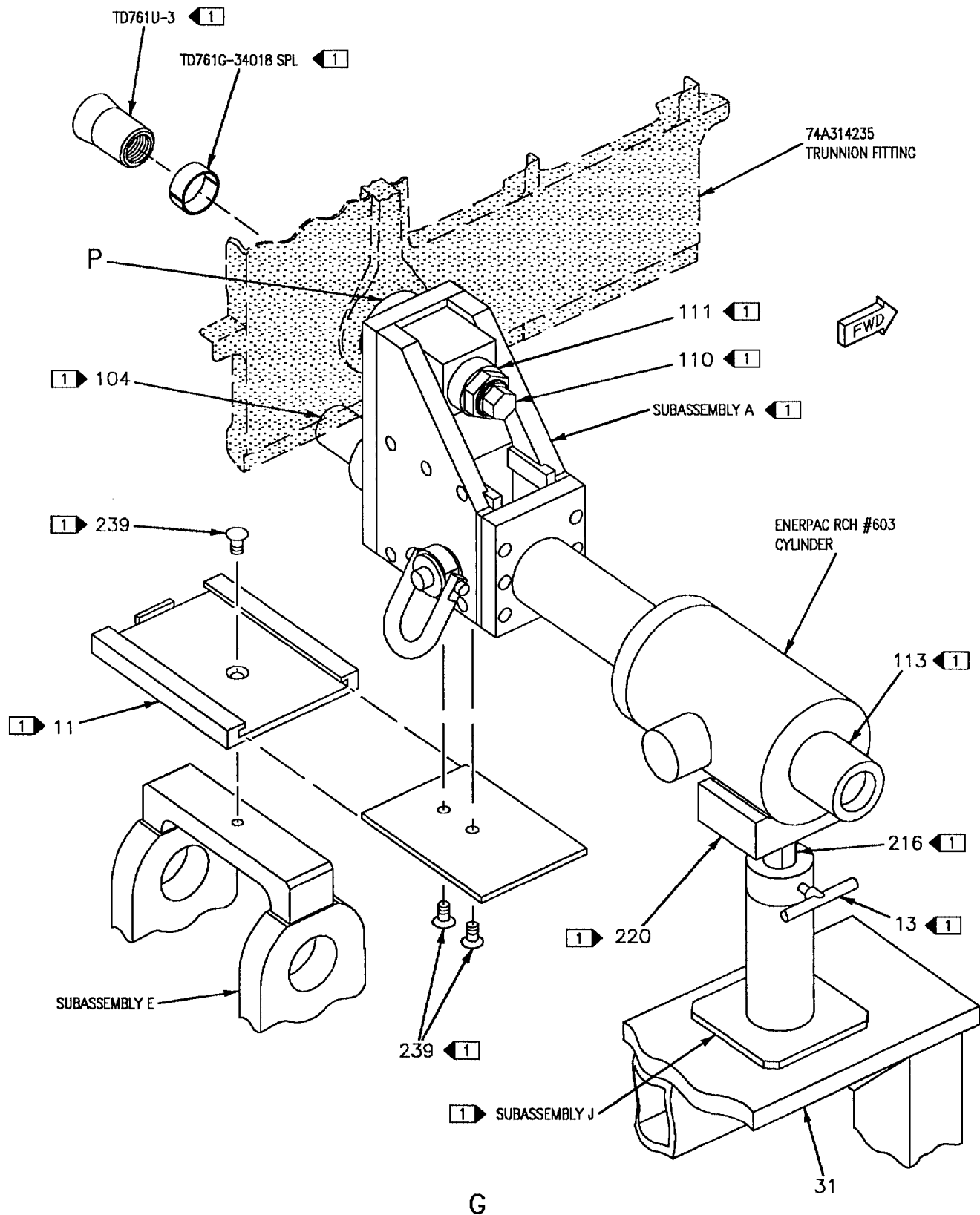


Figure 5. Trunnion Support Fitting Reaming (Sheet 7)

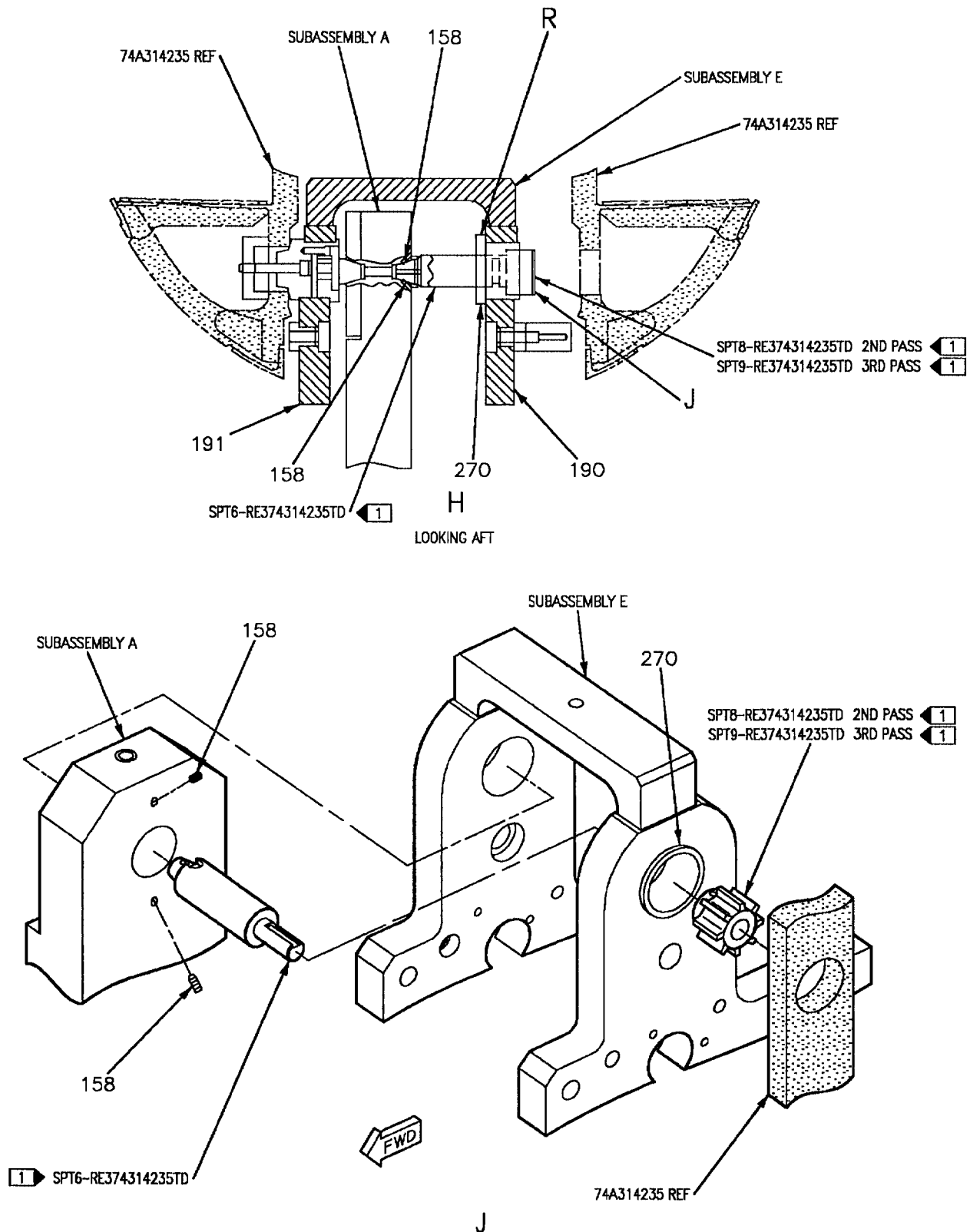


Figure 5. Trunnion Support Fitting Reaming (Sheet 8)

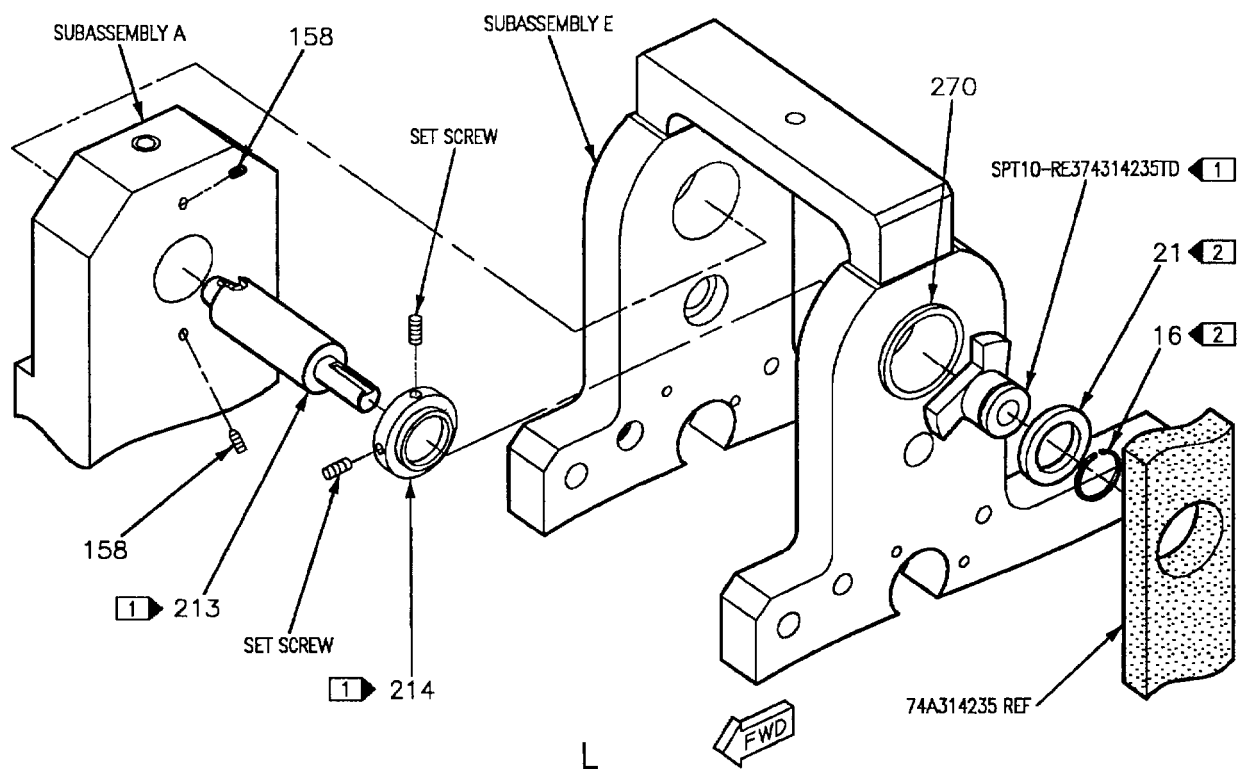
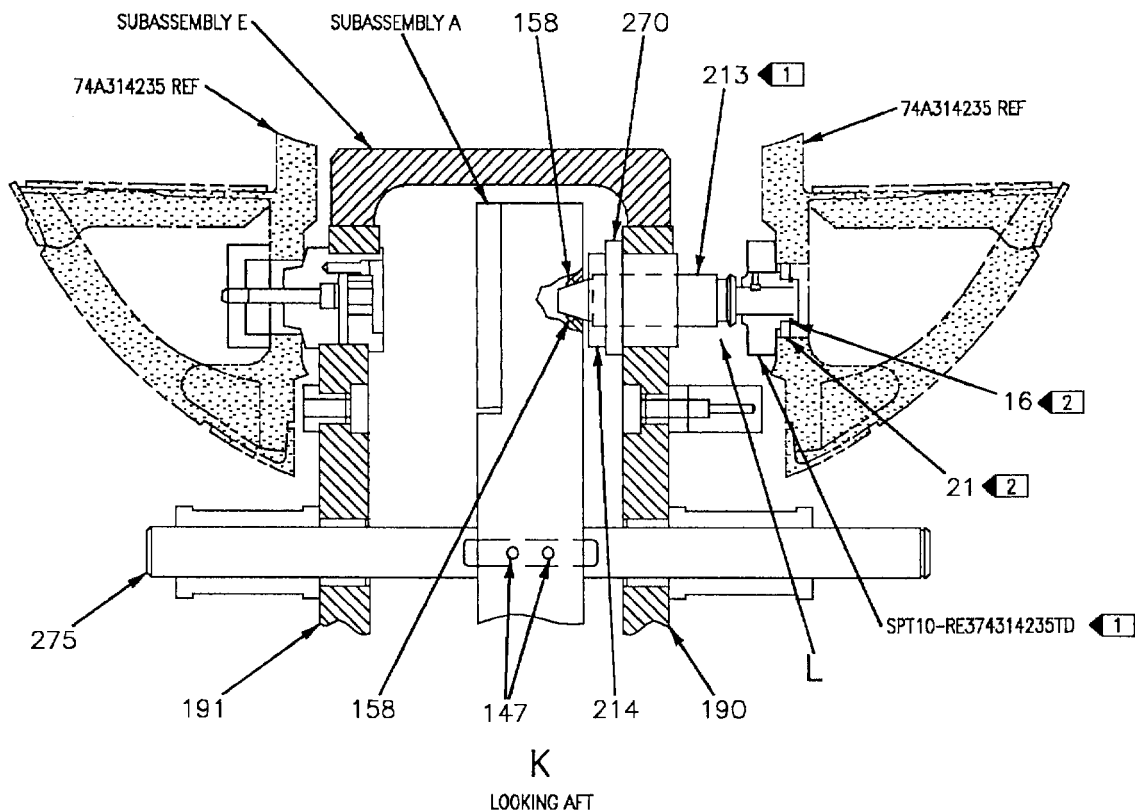
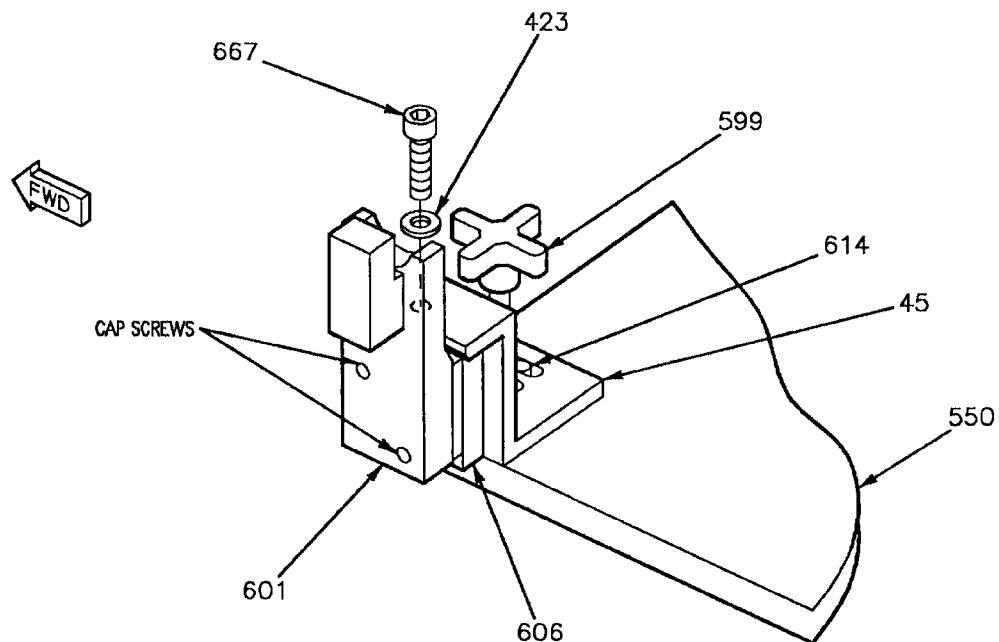
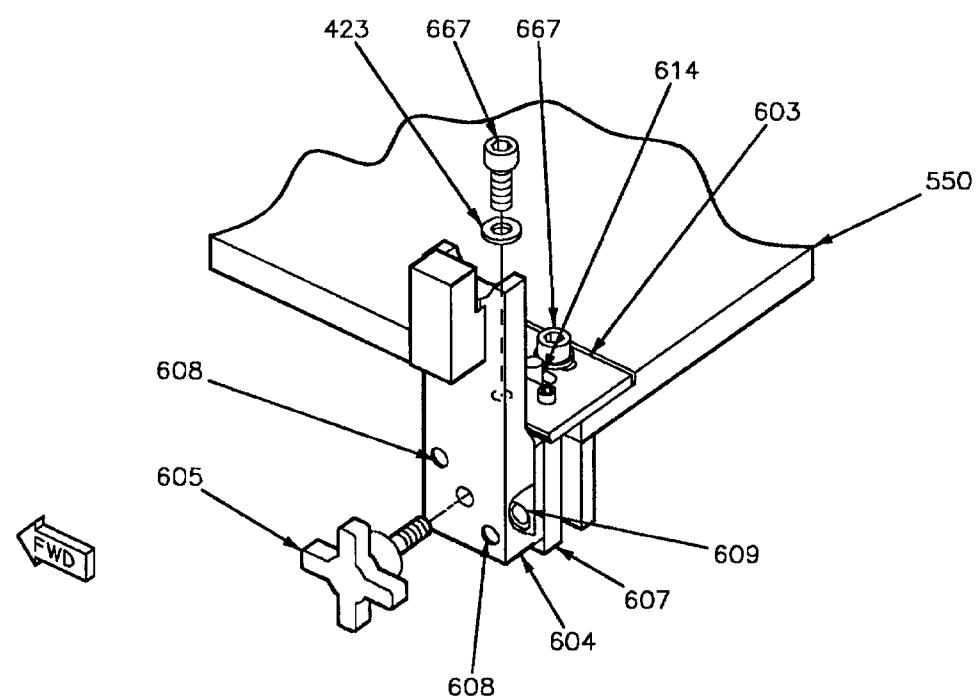


Figure 5. Trunnion Support Fitting Reaming (Sheet 9)



M

TYPICAL BOTH SIDES

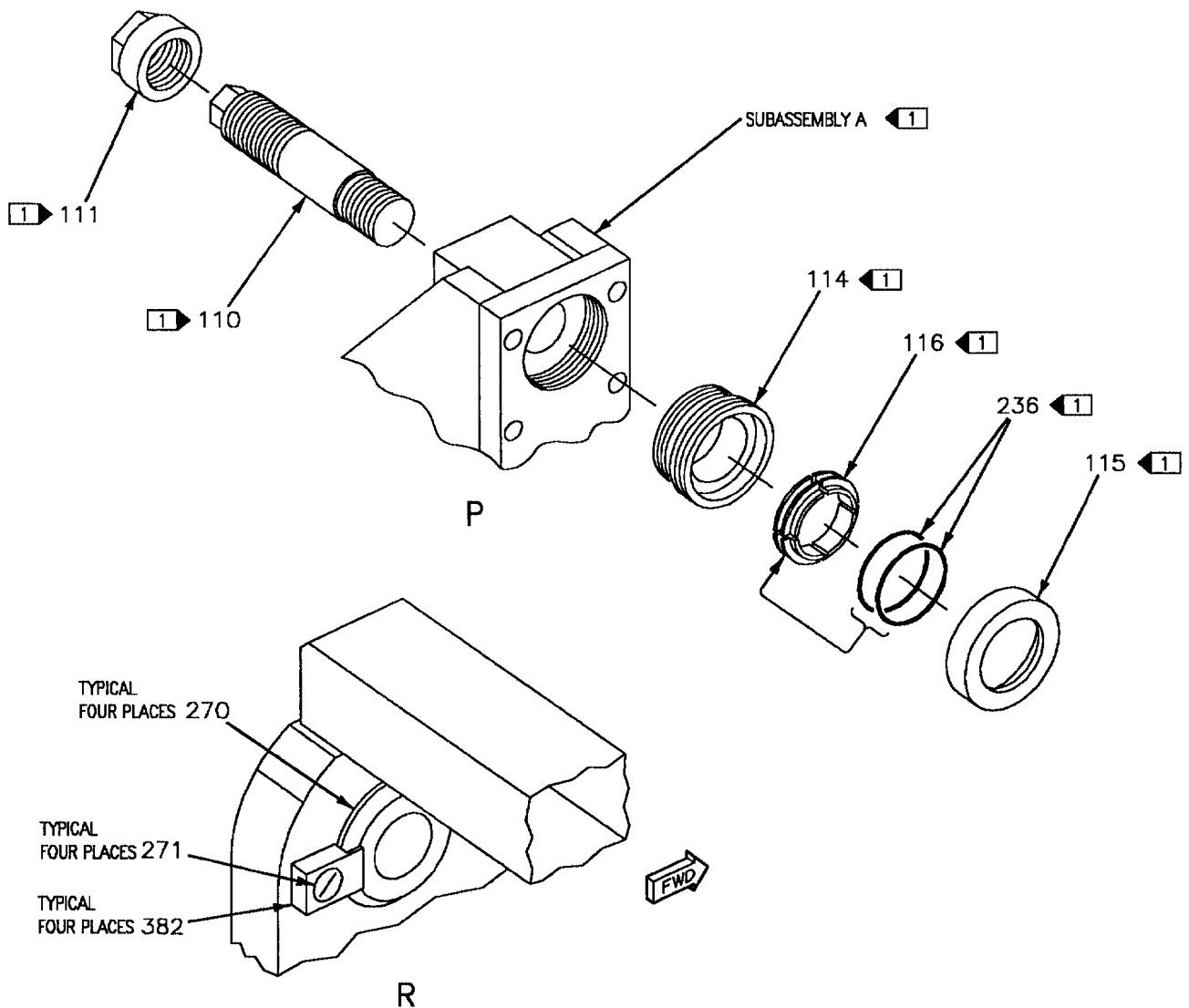


N

TYPICAL BOTH SIDES

18AC-SRM-221-(138-10)02-CATI

Figure 5. Trunnion Support Fitting Reaming (Sheet 10)



LEGEND

- 1 DETAILS FLAGGED ARE PART OF RE374314235TD, N.L.G. TRUNNION DRAG BRACE SUPPORTS TOOL SET.
- 2 DETAIL 16 AND 21 ARE PART OF SPT10-RE374314235TD, SPOTFACER – SUPPORT ASSEMBLY.

Figure 5. Trunnion Support Fitting Reaming (Sheet 11)











Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing operations.
Subassembly A 	Block	Used to cold work trunnion bearing fitting, 74A314235.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves
Subassembly F	Alignment Frame	Checks for correct X plane location in nose landing gear bay.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly J 	Support Stand	Used to support and align ENERPAC RCH #603 cylinder.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
ENERPAC RCH #202	Cylinder (Depot Furnished)	Used to operate (detail 128) by pushing it outboard, installing trunnion bearing sleeve, 74A314395.
ENERPAC RCH #603	Cylinder (Depot Furnished)	Used to operate (detail 114) by pushing it inboard.
TD216G5-22 	GO/NO GO Plug Gage	Used to check hole diameter in trunnion fitting, 74A314235.
TD761G3-4018 SPL 	Split Sleeve	Used in hole diameter in trunnion fitting, 74A314235.
TD761G-35320 SPL 	Split Sleeve	Used in hole diameter in trunnion fitting, 74A314235.
TD761U-3 	Mandrel	Used to enlarge hole in trunnion fitting, 74A314235.
TD761U-4 	Mandrel	Used to enlarge hole in trunnion fitting, 74A314235.
SPT6-RE374314235TD 	Driver	Used to align and secure reamers in cutting and spotfacing operations.
SPT7-RE374314235TD 	Reamer	Used in 1st pass reaming, before cold work on trunnion fitting, 74A314235.
SPT8-RE374314235TD 	Reamer	Used in 2nd pass reaming, after cold work on trunnion fitting, 74A314235.

Figure 5. Trunnion Support Fitting Reaming (Sheet 12)









Detail No.	Name	Function
SPT9- RE374314235TD 	Reamer	Used in 3rd pass reaming, after cold work on trunnion fitting, 74A314235.
SPT10- RE374314235TD 	Cutter	Used to spotface trunnion bearing sleeve, 74A314395.
SPT23- RE374314235TD 	Reamer	Used to ream inside diameter of trunnion bearing sleeve, 74A314395.
11 	Plate	Used to secure Subassembly A to Subassembly E.
12 	Support	Used to support and align ENERPAC RCH #202 cylinder.
13 	T-Screw	Used to hold (detail 216) in position.
16 	Retaining Ring	Used to hold (detail 21) onto cutter (detail 1).
19	Jacking Beam	Used to support the aircraft and secure Subassembly E using (detail 198, 199 and 200).
20	Welded Assembly	Used to attach (detail 240) and become a part of Subassembly E.
21 	Shim	Used to align (detail 213) to inside diameter of 74A314395, bearing sleeve.
23	Support	Pins to Subassembly E with (detail 178) and to Subassembly F with (detail 178) supporting Subassembly F in nose landing gear bay.
24	Clamp	Used to hold 74A314612, right hand trunnion and (detail 193) in the correct position using (detail 319).
25	Clamp	Used to hold 74A314612, left hand trunnion and (detail 192) in the correct position using (detail 321).
26	Clamp	Used to hold 74A314235, left hand drag brace and (detail 190) in the correct position using (detail 324).
27	Clamp	Used to hold 74A314235, right hand drag brace and (detail 191) in the correct position using (detail 326).
31	Fixture	Used to support Subassembly J and Subassembly E.
43	Bracket	Holds subassembly R on the lower right hand side of the tool frame when not using on Subassembly E.
45	Welded Assembly	Used to align Subassembly E when not attached to aircraft in the trunnion area.

Figure 5. Trunnion Support Fitting Reaming (Sheet 13)













Detail No.	Name	Function
104 	Shaft	Used to align ENERPAC RCH #603 cylinder and drive Subassembly A.
110 	Bolt	Used to secure TD761U-3 mandrel to Subassembly A.
111 	Nut	Used to take up slack between (detail 110) and (detail 171).
113 	Nut	Used to secure ENERPAC RCH #603 cylinder to Subassembly A.
114 	Coupling	Used to align (detail 110) and house (detail 116) and (detail 236).
115 	Cap Screw	Used to secure (detail 114) to Subassembly A.
116 	Sleeve	Used to house (detail 236) and align (detail 110).
126 	Cap	Used to secure (detail 128) into trunnion fitting 74A314235, bearing sleeve.
127 	Sleeve Fitting	Used to align (detail 128) through 74A314395 bearing sleeve.
128 	Threaded Stud	Used to secure sleeve fitting (detail 127) to (detail 126).
143 	Nut, Hex	Used to secure (detail 128) and (detail 144) onto ENERPAC RCH #202 cylinder.
144 	Washer	Used with (detail 143) to take up slack on (detail 128).
147	Set Screws	Used to secure shaft (detail 275) to Subassembly A.
158	Set Screws	Used to lock in place shaft (detail 213) into Subassembly A.
176	L-Brackets	Used to check for correct X plane between 74A314208 plates.
177	Bushing	Used to check for correct X plane between 74A314208 plate.
178	L-pins	Aligns support locator (detail 23) in nominal position.
190	Plate	Part of Subassembly E, used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.

Figure 5. Trunnion Support Fitting Reaming (Sheet 14)







Detail No.	Name	Function
198	Screw	Attach (detail 19) to Subassembly E with (detail 199 and 200).
199	Swivel Washers	Used on forward and aft side of (detail 19) with (detail 198 and 200) to attach (detail 19) to Subassembly E.
200	Nuts	Used on forward side of (detail 19) with (detail 198) to attach (detail 19) to Subassembly E.
213 	Shaft	Used to align and secure cutter, SPT10-RE374314235TD to Subassembly A.
214 	Spacer	Used to gage amount that SPT10-RE374314235TD can take off of trunnion sleeve, 74A314395.
215	Screws	Adjusts center to center distance in right hand drag brace
216 	Shaft	Used with (detail 220) to support ENERPAC RCH #603 cylinder.
220 	Support Fitting	Supports ENERPAC RCH #603 cylinder with (detail 216).
236 	O'Rings	Used with (detail 116) to align TD761U-27 mandrel.
239 	Cap Screw	Used to secure (detail 11) to Subassembly E.
240	Plate	Used to support and lift Subassembly E.
242	Adjusting Screws	Used to adjust (detail 304) into right hand trunnion fitting.
243	Adjusting Screws	Used with (detail 242) to adjust (detail 304) into right hand trunnion fitting.
244	Clamp	Used to secure Subassembly E to (detail 20) and (detail 240).
245	Bolt	Used to secure (detail 244) to (detail 240).
248	Adjusting Screws	Used to adjust height of Subassembly E from (detail 240).
261	Bushing	Used to align shaft (detail 620) for correct X plane on Subassembly E.
262	Bushing	Used to check for correct X plane location in left hand drag brace area.
263	Bushings	Used to check for correct X plane location in left and right hand trunnion area.
264	L-pin	Used to secure (detail 192) and (detail 20) in drag brace area.
267	Screws	Used to lock in place (detail 192) and (detail 20).
270	Bushing	Used to guide (detail 213) into Subassembly A.

Figure 5. Trunnion Support Fitting Reaming (Sheet 15)

Detail No.	Name	Function
271	Screw	Used to secure (detail 382) to (detail 190).
272	Holding Pin Bushing	Used to check for correct X plane location in left hand trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
275	Shaft	Used to support Subassembly A in Subassembly E, attached with (detail 147).
276	Bushings	Installed into (detail 191 and 193), secured to (detail 296 or 304) with (detail 278).
278	Screws	Used to secure (detail 276) to (detail 296 or 304).
280	Caps	Used to take up the slack in Z plane in drag brace area. Secures with (detail 281 and 287).
281	Screw	Used to secure (detail 280) to left hand drag brace fitting, 74A314612.
283	Cap	Used to take up the slack in Z plane in trunnion area. Secured with (detail 284 and 304).
284	Screw	Used to secure (detail 283) to right hand trunnion fitting, 74A314235.
285	Nuts	Used to lock (detail 300) into (detail 192).
287	Screw	Used to secure (detail 280) and take up slack between 74A314612 and (detail 300), on left hand drag brace area.
296	Sleeve Fitting	Installed into (detail 193), secured to (detail 276) with (detail 281).
300	Plug	Used to line up left hand drag brace sleeve 74A314663, secured with (detail 285).
304	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 284).
309	Clamp Assemblies	Used to secure 74A314612 and 74A314619 longeron.
311	Jacks	Used to take up slack between (detail 309), 74A314612 and 74A314619 longeron.
312	Screws	Used to attach (detail 313, 314, 315 and 316) to Subassembly E.
313	Block	Attached to (detail 193) and used as support for (detail 309).
314	Block	Attached to (detail 192) and used as support for (detail 309).

Figure 5. Trunnion Support Fitting Reaming (Sheet 16)

Detail No.	Name	Function
315	Block	Attached to (detail 190) and used as support for (detail 309).
316	Block	Attached to (detail 191) and used as support for (detail 309).
317	Retaining Screws	Used to secure left and right hand longeron 74A314612 to Subassembly E.
318	Jack	Used to help secure right hand longeron 74A314612 to Subassembly E.
319	Cap Screw	Used to attach (detail 24) to (detail 193).
320	Jack	Used to help secure left hand longeron 74A314612 to Subassembly E.
321	Cap Screw	Used to attach (detail 25) to (detail 192).
322	Retaining Screws	Used to secure left and right hand trunnion support 74A314235 to Subassembly E.
323	Jack	Used to help secure left hand trunnion support 74A314235 to Subassembly E.
324	Cap Screw	Used to attach (detail 26) to (detail 190).
325	Jack	Used to help secure right hand trunnion support 74A314235 to Subassembly E.
326	Cap Screw	Used to attach (detail 27) to (detail 191).
331	Motor	Used to supply feed to operate Subassembly A.
332	Block	Attached to Subassembly E and used as a guide for Subassembly H.
334	Lock Button	Used to lock Subassembly H into place on Subassembly E.
335	Clevis	Attached to Subassembly H and Subassembly A, secured with (detail 404).
354	Hoses	Used to provide air pressure to motor (detail 331).
382	Stop, Shoulder	Used to hold (detail 270) in place with (detail 271).
386	Sleeve Fitting	Used in replacement support fitting in drag brace 74A314612, for reaming and spotfacing.
390	Sleeve Fitting	Used in replacement support fitting in trunnion 74A314395, for reaming and spotfacing.
393	Sleeve Fitting	Third oversize. Installed into (detail 191), secured to (detail 276) with (detail 284).

Figure 5. Trunnion Support Fitting Reaming (Sheet 17)



Detail No.	Name	Function
404	Shoulder Screw	Used to secure (detail 335) and Subassembly H.
423	Washer	Used with cap screw to adjust dovetail guide (detail 606) up or down, to position shaft (detail 260 or 275) in trunnion area.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.
478	Fittings	Used to connect hoses (detail 354) to motor (detail 331) when installed on Subassembly A.
550	Lift Platform	Used to lift Subassembly E up or down.
599	Knob	Used to secure (detail 45) to lift platform (detail 550) in trunnion area.
601	Guide	Used to align Subassembly E when not attached to aircraft and supports either (details 260 or 275) in trunnion area.
602	Shaft	Used to align support Subassembly E when not attached to aircraft.
603	Plate	Attached to (detail 550) with two cap screws, also as a supporting plate for (detail 607).
604	Guide	Used to align Subassembly E when not attached to aircraft and supports either (details 260 or 275) in drag brace area.
605	Knob	Used to secure guide (detail 604) into dovetail slide (detail 607).
606	Dovetail Slide	Used to make adjustments on leveling Subassembly E in trunnion area when not attached to aircraft.
607	Dovetail Slide	Used to make adjustments on leveling Subassembly E in drag brace area when not attached to aircraft.
608	Nose Dowel Pins	Used to align guide (detail 604) into bullet nose bushings (detail 609) which are installed in dovetail slide (detail 607).
609	Bullet Nose Bushings	Used to align nose dowel pins (detail 608) which are installed in guide (detail 604).
614	Guide Pin	Used to align plate (detail 603) up with lift platform (detail 550).
667	Cap Screws	Used to align (detail 285 or 602) on (detail 601 or 607).
LEGEND		
	Parts flagged are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set.	
	Details 16 and 21 are part of SPT10-RE374314235TD Spotfacer Support Assembly.	

Figure 5. Trunnion Support Fitting Reaming (Sheet 18)

20. DRAG BRACE SUPPORT FITTING REAMING. Figure 6.**21. SETUP.****a. Removing Subassembly A from Subassembly E.**

(1) Slide lift platform (detail 550) as far forward as possible, figure 6, detail A.

(2) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard clearing Subassembly E, figure 6, detail A.

(3) Pivot Subassembly A forward and loosen two lower set screws (detail 147). Slide lower shaft (detail 275) outboard clearing Subassembly E. Lower Subassembly A down onto plate (detail 258).

b. Install Subassembly A into aft portion of Subassembly E.

(1) Slide lift platform (detail 550) as far aft as possible, figure 6, detail B.

(2) Place Subassembly A between plate (detail 192 and 193), install upper and lower shaft (detail 275) and tighten upper and lower two set screws (detail 147), figure 6, detail C.

(3) Slide lift platform (detail 550) forward until locator pins (detail 610) mates with locator bushings (detail 611), figure 6, detail B.

c. Scale span between left and right drag brace fittings using a bar micrometer (detail 237) of RE374314235-1. See drag brace sleeve installation nominal size, WP023 02. Dimension taken to be used for setting spotfacer in operation, this WP.**NOTE**

Left and right procedures the same.

d. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 6, detail J.

e. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 193) at right hand trunnion support fitting, 74A314235.

f. Install sleeve fitting (detail 304) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 304), install sleeve fitting (detail 390), figure 6, detail C.

g. Install bushing (detail 276) into 2.751 diameter hole in plate (detail 191) at right hand trunnion support fitting, 74A314235.

h. Install sleeve fitting (detail 296) by attaching it to bushing (detail 276) using screw (detail 278) three places. If unable to install sleeve fitting (detail 296), install sleeve fitting (detail 386), figure 6, detail D.

i. Place two L-pins (detail 264) in Nom position on plates (detail 192 and 193), figure 6, detail F.

j. Loosen bolt (detail 245), clamp (detail 244) four places that are positioned on plate (detail 240).

k. Use adjusting screws (detail 242, 243 and 248) four places, figure 6, detail F, so as to engage sleeve fitting (detail 304) or (detail 390) into right trunnion support fitting 74A314235, figure 6, detail C, or (detail 296, 386) into right hand drag brace support fitting 74A314612, figure 6, detail D.

l. If center to center is off in right hand drag brace support fitting 74A314612, pull L-pins (detail 264) on each side of Subassembly E. Loosen four screws (detail 267) on each side of Subassembly E. Adjust center distance by turning screw (detail 215) on each side of Subassembly E, figure 6, detail F, either by tightening or loosening until sleeve fitting (detail 304) can be engaged into bearing sleeve 74A314663 or drag brace support fitting 74A314612, figure 6, detail C.

NOTE

Make sure that spacing is within ± 0.030 . If not, engineering disposition has to be obtained for out of dimension repair.

m. Install L-pins (detail 264) into adjustment hole from -0.030 to +0.030 on each side of Subassembly E based upon if forward or aft adjustments was made, figure 6, detail F.

n. Torque screws (detail 267) four places on each side of Subassembly E to 60 ft lbs and clamp welded assembly (detail 20) with clamp (detail 244) with bolt (detail 245) four places, figure 6, detail F.

o. Install plug (detail 308) into 2.751 diameter hole in place (detail 190) at left hand trunnion support fitting, 74A314235. Secure plug (detail 308) by locking it in place with two nuts (detail 285), figure 6, detail C.

p. Install bushing (detail 262) into plate (detail 192) and holding pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left hand drag brace support fitting area, figure 6, detail B.

q. Install bushing (detail 263) and holding pin bushing (detail 272) onto (detail 190) using washer (detail 274) and screw (detail 190) using washer (detail 274) and screw (detail 273) in left hand trunnion support fitting area, figure 6, detail A.

r. Install Subassembly F onto both sides of Subassembly E by pinning it with two L-pins (detail 178).

s. Swing Subassembly F up into nose landing gear bay, pin support (detail 23) by pinning it with two L-pins (detail 178) on both sides of Subassembly E, figure 1 sheet 1.

t. Check for correct X plane location, equal feel within ± 0.030 in nose landing gear bay at 74A314208 plates by inserting 0.250 inch feeler gage between L-brackets (detail 176) and 74A314208 plate on right side and between bushing (detail 177) and 74A314208 plate on left side, figure 1, detail E.

u. Check for correct X plane location, equal feel within ± 0.030 at 74A314612 drag brace support fitting area, by inserting 0.250 inch feeler gage between bushing (detail 262) and 74A314612 drag brace support fitting, right hand side and between bushing (detail 272) and 74A314612 drag brace support fitting on left side, figure 6, detail C.

v. If alignment check fails to meet the requirements at 74A314612 drag brace support fitting, adjust plug (detail 308) by loosening or tightening nuts (detail 285) and/or shimming as required between plate (detail 193) and sleeve fitting (detail 304) or (detail 390), figure 6, detail C.

w. Check for correct X plane location, equal feel within ± 0.030 at 74A314235 trunnion support fitting area, by inserting 0.250 inch feeler gage between bushing (detail 263) and 74A314235 trunnion support fitting, right side and between holding pin bushing (detail 272) and 74A313235 trunnion support fitting on the left side, figure 6, detail D.

x. If alignment check fails to meet the requirements at 74A314235 trunnion support fitting, shim as required between plate (detail 193) and sleeve fitting (detail 296), or (detail 386), figure 6, detail D.

y. Secure plate (detail 191) to trunnion support fitting, installing cap (detail 292) by attaching it with screw (detail 284), figure 6, detail C.

z. Secure plate (detail 193) to right hand drag brace support fitting, installing cap (detail 280) by attaching it with screw (detail 281), figure 6, detail D.

aa. Secure plate (detail 190) to left hand trunnion support fitting, installing cap (detail 292) by attaching it with screw (detail 287), figure 6, detail C.

ab. Secure Subassembly E to airframe.

(1) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 323), figure 1, detail G.

(2) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 325), figure 1, detail G.

(3) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 318), figure 1, detail H.

(4) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 320), figure 1, detail H.

(5) On left side of longeron 74A314619, attach block (detail 315) to plate (detail 190) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619, with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(6) On right side of longeron 74A314619, attach block (detail 316) to plate (detail 191) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(7) On right side of longeron 74A314612, attach block (detail 313) to plate (detail 193) by installing two screw (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(8) On left side of longeron 74A314612 attach block (detail 314) to plate (detail 192) by installing two screws (detail 312) from inboard side. Clamp longeron 74A314619 with clamp assembly (detail 309) and tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(9) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 1, detail F.

(10) Do reaming procedures, this WP.

22. REAMING.

NOTE

Left and right procedures the same.

a. Support first pass reaming before cold working.

(1) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334).

(2) Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in detail E. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 6, detail E.

(3) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

(4) On Subassembly L, turn LIFT knob switch to PARK position, figure 6, detail J.

(5) Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

(6) Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 193) locking it in place with Subassembly A, figure 6, detail E.



Make sure hoses (detail 354) are connected to proper inlets.

(7) Connect hoses (detail 354) to motor (detail 331).

(8) Feed Subassembly A as far as possible to the right hand side using feed from Subassembly H, figure 6, detail E.

(9) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 6, detail E.

(10) Pivot Subassembly A aft to gain access to install bushing (detail 270) in upper portion of plate (detail 192).

(11) Install stop shoulder (detail 382) to hold bushing (detail 270) in place by attaching stop shoulder (detail 382) with screw (detail 271), figure 6, detail G.

(12) Insert boring bar, SPT-RE374314235TD into bushing (detail 270) and against bottom of drag brace support fitting 74A314663, figure 6, detail E.

(13) Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147).

(14) Feed Subassembly A as far as possible to the right side using feed from Subassembly H.

(15) Mount boring bar, SPT-RE374314235TD into Subassembly A and lock it in place with two set screws (detail 158), figure 6, detail E and H.

(16) Install cutter, SPT2-RE374314235TD between plate (detail 192) and left hand drag brace support fitting 74A314612, figure 6, detail E and H.

(17) Slide cutter, SPT2-RE374314235TD onto boring bar, SPT-RE374314235TD securing it with lockscrew (detail 5), figure 6, detail H.

(18) On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position. Turn POWER FEED knob switch to LH, figure 6, detail J.

(19) Power feed cutter, SPT2-RE374314235TD into left hand drag brace support fitting 74A314235 and bore to 2.370 diameter, figure 6, detail E.

(20) On Subassembly L, turn SPINDLE knob switch to OFF position, figure 6, detail, J.

(21) Back cutter, SPT2-RE374314235TD out of hole in left hand drag brace support fitting, 74A314235 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 6, detail J.

(22) Remove lock screw (detail 5) from cutter, SPT2-RE374314235TD and boring bar, SPT-RE374314235TD. Remove cutter, SPT2-RE374314235TD from between inboard side of drag brace support fitting, 74A314612 and Subassembly E, figure 6, detail E.

b. Support second pass reaming before cold working.

(1) Install cutter, SPT3-RE374314235TD between plate (detail 192) and left hand drag brace support fitting 74A314612, figure 6, detail E and H.

(2) Slide cutter, SPT 3-RE374314235TD onto boring bar, SPT-RE374314235TD securing it with lock screw (detail 5), figure 6, detail H.

(3) On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position. Turn POWER FEED knob switch to LH, figure 6, detail J.

(4) Power feed cutter, SPT3-RE374314235TD into left hand drag brace support fitting, 74A314235 and bore to 2.3906 diameter, figure 6, detail E.

(5) Back cutter, SPT3-RE374314235TD out of hole in left hand drag brace support fitting, 74A314235 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 6, detail J.

(6) Remove lock screw (detail 5) from cutter, SPT3-RE374314235TD and boring bar, SPT-RE374314235TD. Remove cutter, SPT3-RE374314235TD from between inboard side of drag brace support fitting, 74A314612 and Subassembly E, figure 6, detail E and H.

c. Inspect diameter of bore/reamed hole in drag brace fitting, 74A314235 to 2.3906 diameter with an inside caliper micrometer.



Dry Cleaning Solvent, P-D-680, Type II

25

d. Clean diameter surface of bore/reamed hole in drag brace support fitting, 74A314612 using dry cleaning solvent.

e. Wipe and dry with clean dry cheesecloth.

f. Set up, Subassembly E before removing.

(1) Attach welded assembly (detail 45) to lift platform (detail 550), by aligning it up with guide pin (detail 614) located on forward end of lift platform (detail 550), both sides. Secure it by installing knob (detail 599), figure 5, detail M.

(2) Attach guide (detail 601) to dovetail slide (detail 606) using two cap screws. Attach dovetail slide (detail 606) to welded assembly (detail 45) with washer (detail 423) and cap screw, figure 5, detail M.

(3) Align guide (detail 604) to dovetail slide (detail 607), by installing two bullet nose dowel pins (detail 608) into bullet nose bushings (detail 609). Secure guide (detail 604) by attaching it with knob (detail 605), figure 5, detail N.

(4) Insert shaft (detail 602) through lower bushing (detail 261) attached to plate (detail 192 and 193).

g. Remove Subassembly E.

(1) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 1, detail F.

(2) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(3) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(4) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(5) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(6) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace support fitting, 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 1, detail H.

(7) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace support fitting, 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 1, detail H.

(8) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion support fitting, 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 1, detail G.

(9) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion support fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 1, detail G.

(10) On right hand side of drag brace support fitting 74A314612, remove screw (detail 281) and cap (detail 280) from sleeve fitting (detail 296) or (detail 386), figure 6, detail D.

(11) On right hand side of trunnion support fitting 74A314235, remove screw (detail 284) and cap (detail 292) from sleeve fitting (detail 304) or (detail 390), figure 6, detail C.

(12) On left side of trunnion support fitting 74A314235, remove screw (detail 287) and cap (detail 292) from plug (detail 308), figure 6, detail C.

(13) On left side of trunnion support fitting 74A314235, remove two nuts (detail 285) holding plug (detail 308) in 2.751 diameter hole in plate (detail 190). Remove plug (detail 308), figure 6, detail C.

(14) In left side drag brace support fitting area 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 6, detail D.

(15) In left hand trunnion support fitting area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 6, detail C.

(16) Disconnect hoses (detail 354) from motor (detail 331).

(17) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 190).

(18) On Subassembly L, turn LIFT knob switch to PARK position, figure 6, detail J.

(19) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 191).

(20) Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame, figure 6, detail E.



Make sure hoses (detail 354) are connected to proper inlets.

(21) Connect hoses (detail 354) to motor (detail 331).

(22) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335). Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334).

(23) Remove Subassembly H through lower hole in plate (detail 192), figure 6, detail E. Attach Subassembly H to left side of tool frame, with knob (detail 655).

(24) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 6, detail J.

(25) Do cold working drag brace, this WP.

23. COLD WORKING DRAG BRACE. Hydraulic Pump Assembly, Pneumatic, 74D110323-1001, is used to energize ENERPAC RCH #603 cylinder during cold working per (A1-F18AC-SRM-200, WP004 18).

NOTE

Left and right procedures the same.

a. Attach plate (detail 11) to Subassembly E with cap screw (detail 239), figure 6, detail K.

b. Slide Subassembly A on to plate (detail 11), figure 6, detail K.

c. Place two o'rings (detail 134) onto sleeve (detail 118). Slide sleeve (detail 118) inside coupling (detail 117). Screw coupling (detail 117) into Subassembly A. Screw cap (detail 119) onto coupling (detail 117), figure 6, detail N.

d. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until it is in line with hole opening in trunnion fitting, 74A314325. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 6, detail J.

e. Remove nut (detail 113) from shaft (detail 104).

f. Install ENERPAC RCH #603 cylinder onto shaft (detail 104) and secure it by tightening nut (detail 113). Support ENERPAC RCH #603 cylinder by placing Subassembly J under it and placing it on upper face on right hand side of fixture (detail 31).

g. Adjust the height of Subassembly J by loosening t-screw (detail 13) and either raising or lowering shaft (detail 216) so that the support fitting (detail 220) is supporting the hydraulic cylinder, figure 6, detail K.

h. Loosen nut (detail 111) to the end of bolt (detail 110). Insert split sleeve, TD761G-39024 SPL from outboard side into drag brace fitting 74A314612, figure 6, detail K.

i. Insert mandrel, TD761U-5 through split sleeve, TD761G-39024 SPL and screw onto bolt (detail 110). Tighten up nut (detail 111) to take up slack, figure 6, detail K.

j. Energize ENERPAC RCH #603 cylinder to pull mandrel, TD761U-5 through split sleeve, TD761G-39024 SPL into drag brace fitting, 74A314612, figure 6, detail K.

k. Check hole diameter in drag brace support fitting 74A314612, using GO/NO GO plug gage, TD216G5-23.

l. Remove Subassembly A.

(1) Loosen nut (detail 111) and unscrew mandrel, TD761U-5 from bolt (detail 110), figure 6, detail K.

(2) Remove split sleeve, TD761G-39024 SPL from drag brace support fitting 74A314612, figure 6, detail K.

(3) Remove nut (detail 113) from shaft (detail 104) and remove ENERPAC RCH #603 cylinder. Screw nut (detail 113) onto shaft (detail 104), figure 6, detail K.

(4) On Subassembly L, turn LIFT knob switch to DRIVE to activate lift cycle. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DOWN and lower Subassembly A until it clears drag brace support fitting 74A314612, figure 6, detail J.

(5) Slide Subassembly A from plate (detail 11).

(6) Remove plate (detail 11) from Subassembly E by removing cap screw (detail 239), figure 6, detail K.

(7) Remove Subassembly J from fixture (detail 31), figure 6, detail K.

(8) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 6, detail J.

m. Reinstall Subassembly E.

(1) On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn knob switch to UP and lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 6, detail J.

(2) Install holding pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left hand trunnion support fitting area, figure 6, detail C.

(3) Install holding pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left hand drag brace support fitting area, figure 6, detail E.

(4) Secure plate (detail 191) to trunnion support fitting by installing cap (detail 292) and attaching it with screw (detail 284), figure 6, detail C.

(5) Slide plug (detail 308) through 2.751 diameter hole in plate (detail 190) until it engages left hand trunnion support fitting, 74A314235. Secure plug (detail 308) by locking it in place with two nuts (detail 285), figure 6, detail C.

(6) Secure right hand drag brace support fitting, 74A314612 by installing cap (detail 280) and attaching it with screw (detail 281), figure 6, detail D.

(7) Secure left hand trunnion support fitting, 74A314235 by installing cap (detail 292) and attaching it with screw (detail 287), figure 6, detail C.

(8) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 323), figure 1, detail G.

(9) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion support fitting 74A314235, between retaining screw (detail 322) and jack (detail 325), figure 1, detail G.

(10) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 318), figure 1, detail H.

(11) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail 320) into plate (detail 192). Clamp left hand drag brace support fitting 74A314612, between retaining screw (detail 317) and jack (detail 320), figure 1, detail H.

(12) On left side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(13) On right side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(14) On left side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(15) On right side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange on longeron 74A314612, figure 1, detail K.

(16) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 1, detail F.

(17) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334).

(18) Feed shaft end of subassembly H into slot on clevis (detail 335) with handle in position as shown in, figure, 6, detail E. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 6, detail E.

(19) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

(20) On Subassembly L, turn LIFT knob switch to PARK position, figure 6, detail j.

(21) Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

(22) Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 193) locking it in place with Subassembly A, figure 6, detail E.



Make sure hoses (detail 354) are connected to proper inlets.

(23) Connect hoses (detail 354) to motor (detail 331).

24. AFTER COLD WORK REAMING.

a. Support third pass reaming after cold working.

(1) Feed Subassembly A as far as possible to the right hand side using feed from Subassembly H, figure 6, detail E.

(2) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 6, detail E.

(3) Pivot Subassembly A aft to gain access to insert boring bar, SPT-RE374314235TD into bushing (detail 270) and against bottom of drag brace support fitting 74A314663, figure 6, detail E.

(4) Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 6, detail E.

(5) Install cutter, SPT4-RE374314235TD between plate (detail 192) and left hand drag brace support fitting 74A314612, figure 6, detail E and H.

(6) Slide cutter, SPT4-RE374314235TD onto boring bar, SPT-RE374314235TD securing it with lock screw (detail 5), figure 6, detail H.

(7) On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position. Turn POWER FEED knob switch to LH, figure 6, detail J.

(8) Power feed cutter, SPT4-RE374314235TD into left hand drag brace support fitting, 74A314612 and bore to 2.428 diameter, figure 6, detail E.

(9) On Subassembly L, turn SPINDLE knob switch to OFF position, figure 6, detail J.

(10) Back cutter, SPT4-RE374314235TD out of hole in left hand drag brace support fitting 74A314612 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 6, detail J.

(11) Remove lock screw (detail 5) from cutter, SPT4-RE374314235TD and boring bar, SPT-RE374314235TD. Remove cutter, SPT4-RE374314235TD from between inboard side of drag brace support fitting, 74A314612 and Subassembly E, figure 6, detail H.

b. Support fourth pass reaming after cold working.

(1) Install cutter, SPT5-RE374314235TD between plate (detail 192) and left hand drag brace support fitting 74A314612, figure 6, detail E.

(2) Slide cutter, SPT5-RE374314235TD onto boring bar, SPT-RE374314235TD securing it with lock screw (detail 5), figure 6, detail H.

(3) On Subassembly L, turn FEED knob switch to POWER position and turn SPINDLE knob switch to FWD LH position. Turn POWER FEED knob switch to LH, figure 6, detail J.

(4) Power feed cutter, SPT5-RE374314235TD into left hand drag brace fitting, 74A314235 and bore to 2.4483 diameter, figure 6, detail J.

(5) On Subassembly L, turn SPINDLE knob switch to OFF position, figure 6, detail J.

(6) Back cutter, SPT5-RE374314235TD out of hole in left hand drag brace support fitting, 74A314612 and feed Subassembly A as far to the right side by turn SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch to OFF position, figure 6, detail J.

(7) Remove lock screw (detail 5) from cutter, SPT5-RE374314235TD and boring bar, SPT-RE374314235TD. Remove cutter, SPT5-RE374314235TD from between inboard side of drag brace support fitting, 74A314612 and Subassembly E, figure 6, detail H.

(8) Feed Subassembly A as far as possible to the right side using feed from Subassembly H, figure 6, detail E.

(9) Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 6, detail E.

(10) Pivot Subassembly A aft to gain access to remove boring bar, SPT-RE374314235TD from bushing (detail 270) and plate (detail 192), figure 6, detail E.

(11) Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 6, detail E.

(12) Remove boring bar, SPT-RE374314235TD from Subassembly A removing two set screws (detail 158) and slide it between plate (detail 192) and left hand drag brace support fitting 74A314612, figure 6, detail E.

c. Inspect diameter of bore/reamed hole in drag brace support fitting, 74A314612 to 2.4483 diameter with an inside caliper micrometer.



Dry Cleaning Solvent, P-D-680, Type II

25

d. Clean diameter of bore/reamed hole in drag brace support fitting 74A314612, using dry cleaning solvent.

e. Wipe and dry with clean dry cheesecloth.

f. Do spotfacing procedures, this WP.

25. **SPOTFACING.** Spray mist coolant tank assembly RE874000002-1, is used during spotfacing per (A1-F18AC-SRM-200, WP004 16).

NOTE

Left and right procedures the same.

a. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 6, detail E.

b. Pivot Subassembly A aft to gain access to insert shaft (detail 213) into bushing (detail 270) and position as far outboard as possible, figure 6, detail L.

c. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 6, detail C.

d. From inboard side of Subassembly E, slide spacer (detail 214) onto shaft (detail 213) securing it with two set screws, figure 6, detail L and M.

e. Feed Subassembly A as far as possible to the right side using feed from Subassembly H.

f. Mount shaft (detail 213) into Subassembly A and lock it into place with two set screws (detail 158), figure 6, detail L and M.

NOTE

Check cutter, SPT10-RE374314235TD for sharpness after each operation. Cutter may require sharpening.

g. Slide cutter, SPT10-RE374314235TD between Subassembly E and left hand drag brace support fitting 74A314612, onto shaft (detail 213). Rotate cutter SPT10-RE374314235TD 90° to lock it in place, figure 6, detail M.

h. Install shim (detail 25) onto cutter, SPT10-RE374314235TD using retaining ring (detail 16) to lock it in place, figure 6, detail M.

i. Set depth of spotfacer, SPT10-RE374314235TD according to reading taken during paragraph 21, step c, with stop collar (detail 214), figure 6, detail M.

j. Slide Subassembly A as far as possible to the left side of Subassembly E and still clear plate (detail 190).

k. On Subassembly L, turn LIFT knob switch to PARK position, figure 6, detail J.

l. Remove motor (detail 331) from bracket (detail 43) which is located on right hand side of tool frame.

m. Install motor (detail 331) through lower 4.00 inch diameter hole in plate (detail 191) locking it in place with Subassembly A, figure 6, detail E.



Make sure hoses (detail 354) are connected to proper inlets.

n. Connect hoses (detail 354) to motor (detail 331).

o. On Subassembly L, turn SPINDLE knob switch to FWD LH position and turn FEED knob switch to POWER position. Turn POWER FEED to L.H. position and turn LIFT knob switch to DRIVE position, figure 6, detail J.

p. Power assisted hand feed cutter, SPT10-RE374314235TD to spotface left hand drag brace support fitting 74A314612, using dimension taking from drag brace support fitting reaming, this WP.

q. Back cutter, SPT10-RE374314235TD from face of drag brace support fitting, 74A314612 and feed Subassembly A as far to the right side by hand turning Subassembly H, figure 6, detail L.

r. On Subassembly L, turn FEED knob switch to POWER. Turn SPINDLE knob switch to OFF position, figure 6, detail J.

s. Unlock retaining ring (detail 16) and remove it and shim (detail 25) from cutter, SPT10-RE374314235TD, figure 6, detail M.

t. Rotate cutter, SPT10-RE374314235TD 90° on shaft (detail 213) and remove it between drag brace support fitting, 74A314612 and Subassembly E, figure 6, detail L and M.

u. Loosen two set screws attaching spacer (detail 214) onto shaft (detail 213), figure 6, detail L.

v. Remove shaft (detail 213) from Subassembly A by removing two set screws (detail 158). Unlock cutter, SPT10-RE374314235ED by rotating 90° and slide it between plate (detail 190) and left hand trunnion support fitting 74A314235, figure 6, detail L and M.

w. Slide spacer (detail 214) from shaft (detail 213), figure 6, detail L.

x. Remove shaft (detail 213) from Subassembly A by removing two set screws (detail 158) and position shaft (detail 213) as far outboard as possible, figure 6, detail L.

y. Loosen upper two set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 6, detail E.

z. Pivot Subassembly A aft to gain access to remove shaft (detail 213) from bushing (detail 270), figure 6, detail L.

aa. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 6, detail E.

ab. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Remove shaft (detail 213) from Subassembly A, by unscrewing two set screws (detail 158), figure 6, detail L.

ac. Remove Subassembly E.

(1) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 1, detail F.

(2) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(3) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(4) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(5) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(6) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace support fitting, 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 1, detail H.

(7) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace support fitting, 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 1, detail H.

(8) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion support fitting, 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 1, detail G.

(9) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion support fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 1, detail G.

(10) On left hand side of trunnion support fitting 74A314235, remove screw (detail 287) and cap (detail 292) from plug (detail 308), figure 6, detail C.

(11) On right hand side of drag brace support fitting 74A314612, remove screw (detail 281) and cap (detail 280) from sleeve fitting (detail 296) or (detail 386), figure 6, detail D.

(12) On right hand side of trunnion support fitting 74A314235, remove screw (detail 284) and cap (detail 292) from sleeve fitting (detail 304) or (detail 390), figure 6, detail C.

(13) On left hand side of trunnion support fitting 74A314235, remove two nuts (detail 285) holding plug (detail 308) in 2.751 diameter hole in plate (detail 190), figure 6, detail C.

(14) In left hand drag brace support fitting area 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 6, detail D.

(15) In left hand trunnion support fitting area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 6, detail C.

(16) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 6, detail J.

26. DRAG BRACE BEARING SLEEVE INSTALLATION, NOMINAL SIZE, 74A314663.

NOTE

Left and right procedures the same.

a. Machine outside diameter of bearing sleeve 74A314663, for 0.0013 to 0.0032 interference fit in hole in drag brace support fitting, 74A314612.

b. Attach support (detail 12) to Subassembly E with cap screw (detail 668) and washer (detail 669), WP072 00, figure 6, detail A.



Sealing Compound (Faying Sealant),
MIL-S-83430, Type B-1/2

8

c. Install sleeve fitting (detail 130) into bearing sleeve 74A314663. Apply fillet seal around peripheral of bearing sleeve. For application of fillet seal (A1-F18AC-SRM-200, WP011 00).

d. Insert threaded stud (detail 142) with washer (detail 144) and nut (detail 143) through ENERPAC RCH #202 cylinder. Place on support (detail 12), WP072 00, figure 6, detail A.

e. On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn LIFT knob switch to UP and lift Subassembly E up with lift platform (detail 550) until threaded stud (detail 142) lines up with hole in sleeve fitting (detail 130). Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 6, detail J.

f. Insert sleeve fitting (detail 222) into bearing sleeve through hole in drag brace support fitting 74A314612. Insert threaded stud (detail 142) with washer (detail 144), nut (detail 143) and ENERPAC RCH #202 cylinder into sleeve fittings (detail 130 and 222), WP072 00, figure 6, detail A.

g. Screw cap (detail 131) onto threaded stud (detail 142) from outboard side taking up the slack.

h. Energize cylinder to install bearing sleeve 74A314663-2003 into drag brace support fitting, 74A314612, WP072 00, figure 6, detail A.

i. Unscrew cap (detail 131) from threaded stud (detail 142). Remove sleeve fitting (detail 222).

j. Slide threaded stud (detail 142) with washer (detail 144) and nut (detail 143) from sleeve fitting (detail 130), WP072 00, figure 6, detail A.

k. On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to its lowest position, figure 6, detail J.

l. Remove threaded stud (detail 142), washer (detail 144) and nut (detail 143) from ENERPAC RCH #202 cylinder, WP072 00, figure 6, detail A.

m. Remove ENERPAC RCH #202 cylinder from support (detail 12), WP072 00, figure 6, detail A.

n. Remove cap screw (detail 668) and washer (detail 669) holding support (detail 12) from Subassembly E.



Dry Cleaning Solvent, P-D-680, Type II

25

o. Clean diameter surface of bore/reamed hole in trunnion support fitting 74A314235, using dry cleaning solvent.

p. Wipe and dry with clean dry cheesecloth.

NOTE

Measure span between left and right drag brace bearing sleeve heads using a bar micrometer (detail 237) of RE374314235-1. Dimension taken to be used for setting spotfacer in operation. Span between bearing sleeve heads should be 12.740 ± 0.015 after machining operations.

q. Reinstall Subassembly E.

(1) On Subassembly L, push silver button (detail 434) to activate the system. Adjust pressure regulator (detail 446) to nominal 90 psi. Turn LIFT knob switch to DRIVE to activate lift cycle. Turn knob switch to UP and

lift Subassembly E up with lift platform (detail 550) in line with opening of trunnion and drag brace bearing sleeves. Turn LIFT knob switch to OFF position. Turn LIFT knob switch to PARK position, figure 6, detail J.

(2) Install holding pin bushing (detail 272) onto plate (detail 190) using washer (detail 274) and screw (detail 273) in left hand trunnion support fitting area, figure 6, detail C.

(3) Install holding pin bushing (detail 272) onto plate (detail 192) using washer (detail 274) and screw (detail 273) in left hand drag brace support fitting area, figure 6, detail D.

(4) Secure plate (detail 191) to trunnion support fitting by installing cap (detail 292) and attaching it with screw (detail 284), figure 6, detail C.

(5) Slide plug (detail 308) through 2.751 diameter hole in plate (detail 190) until it engages left hand trunnion support fitting, 74A314235. Secure plug (detail 308) by locking it in place with two nuts (detail 285), figure 6, detail C.

(6) Secure left hand trunnion support fitting, 74A314235 plug by installing cap (detail 292) and attaching it with screw (detail 287), figure 6, detail C.

(7) Secure plate (detail 193) to right hand drag brace support fitting 74A314612, by installing cap (detail 280) and attaching it with screw (detail 281), figure 6, detail D.

(8) Secure clamp (detail 26) to plate (detail 190) by installing cap screw (detail 324). Install jack (detail 323) into plate (detail 190). Clamp left hand trunnion support fitting, 74A314235 between retaining screw (detail 322) and jack (detail 323), figure 1, detail G.

(9) Secure clamp (detail 27) to plate (detail 191) by installing cap screw (detail 326). Install jack (detail 325) into plate (detail 191). Clamp right hand trunnion support fitting, 74A314235 between retaining screw (detail 322) and jack (detail 325), figure 1, detail G.

(10) Secure clamp (detail 24) to plate (detail 193) by installing cap screw (detail 319). Install jack (detail 318) into plate (detail 193). Clamp right hand drag brace support fitting, 74A314612 between retaining screw (detail 317) and jack (detail 318), figure 1, detail H.

(11) Secure clamp (detail 25) to plate (detail 192) by installing cap screw (detail 321). Install jack (detail

320) into plate (detail 192). Clamp left hand drag brace support fitting, 74A314612 between retaining screw (detail 317) and jack (detail (detail 320), figure 1, detail H.

(12) On left side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(13) On right side of longeron 74A314619, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314619, figure 1, detail J.

(14) On left side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(15) On right side of longeron 74A314612, turn clamp assembly (detail 309) inboard and place it on top portion of flange. Tighten nut (detail 310). Tighten jack (detail 311) securely against lower flange of longeron 74A314612, figure 1, detail K.

(16) Attach Subassembly E to jacking beam (detail 19) by installing screw (detail 198), two swivel washers (detail 199) and nut (detail 200) two places, figure 1, detail F.

(17) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334).

(18) Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in detail E. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 6, detail E.

(19) Slide Subassembly A as far as possible to the right side of Subassembly E and still clear plate (detail 193).

(20) On Subassembly L, turn LIFT knob switch to PARK position, figure 6, detail F.

(21) Remove motor (detail 331) from bracket (detail 43) which is located on right side of tool frame.

(22) Install motor (detail 331) through lower 4.00 diameter hole in plate (detail 193) locking it in place with Subassembly A, figure 6, detail E.



Make sure hoses (detail 354) are connected to proper inlets.

(23) Connect hoses (detail 354) to motor (detail 331).

r. Check inside diameter of 74A314663, bearing sleeve.

(1) Slide Subassembly A as far as possible to the left side of Subassembly E and still clear plate (detail 192).

(2) Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334).

(3) Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in detail E. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 6, detail E.

(4) Feed Subassembly A as far as possible to the right hand side using feed from Subassembly H.

(5) Install indicator (detail 219) with bushing (detail 218) locking it in place with two set screws (detail 158), WP023 02, figure 8, detail E.

(6) Install blade (detail 220) onto indicator (detail 219), WP023 02, figure 8, detail E.

(7) On Subassembly L, push silver knob (detail 434) to activate the system. Turn SPINDLE knob switch to FWD LH position and turn FEED knob switch to MANUAL position, figure 24, figure 6, detail J.

(8) Sweep inside diameter of left hand drag brace bearing sleeve with indicator (detail 219), WP072 00, figure 8, detail C.

(9) Indicator (detail 219) should read within 0.003 to verify bearing sleeve will clean up.

(10) If bearing sleeve will not clean up, do drag brace sleeve removal and installation, nominal size procedures, WP023 02.

(11) On Subassembly L, turn FEED knob switch to POWER position. Turn SPINDLE knob switch to OFF position, figure 6, detail J.

(12) Remove indicator (detail 219) from bushing (detail 218) by removing two screws (detail 158), WP023 02, figure 8, detail E.

(13) Do drag brace reaming procedures, this WP.

27. DRAG BRACE REAMING.

NOTE

Left and right procedures the same.

a. Mount Subassembly H into block (detail 332) and lock it in place under two lock buttons (detail 334).

b. Feed shaft end on Subassembly H into slot on clevis (detail 335) with handle in position as shown in detail E. Secure shaft end on Subassembly H with clevis (detail 335) using shoulder screw (detail 404), figure 6, detail E.

c. Feed Subassembly A, as far as possible to the right hand side using feed from Subassembly H, figure 6, detail E.

d. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 6, detail E.

e. Pivot Subassembly A aft to gain access to install bushing (detail 270) in upper portion of plate (detail 192).

f. Install stop (detail 382) to hold bushing (detail 270) in place by attaching stop (detail 382) with screw (detail 271), figure 6, detail G.

g. Insert boring bar, SPT-RE374314235TD into bushing (detail 270) and position as far outboard as possible, figure 6, detail H.

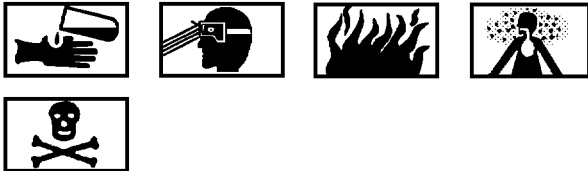
h. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 6, detail E.

i. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Mount boring bar, SPT-RE374314235TD into Subassembly A and lock it in place with two set screws (detail 158), figure 6, detail E and H.

j. Install cutter, SPT24-RE374314235TD between plate (detail 192) and left hand drag brace support fitting 74A314612, WP023 02, figure 8, detail K.

k. Slide cutter, SPT24-RE374314235TD onto boring bar, SPT-RE374314235TD securing it with lock screw (detail 4), WP023 02, figure 8, detail K.

l. On Subassembly L, turn FEED knob switch to POWER to FWD LH position and turn LIFT knob to DRIVE position. Turn POWER FEED knob switch to L.H., figure 6, detail J.



Beryllium

13



Do not feed too far past relief in bearing sleeve to prevent damage to bottom of bearing sleeve.

m. Power feed cutter, SPT24-RE374314235TD into bearing sleeve, 74A314663 to ream inside diameter to 2.250 +0.0018 -0.0000 diameter, WP072 00, figure 8, detail K.

n. On Subassembly L, turn SPINDLE knob switch to OFF position, figure 6, detail J.

o. Back cutter, SPT24-RE374314235TD out of bearing sleeve, 74A314663 and feed Subassembly A as far to the right side by turning SPINDLE knob switch on Subassembly L, to FWD RH. Turn SPINDLE knob switch to OFF position, figure 6, detail J.

p. Remove lock screw (detail 4) from cutter, SPT24-RE374314235TD and boring bar, SPT-RE374314235TD. Remove cutter, SPT24-RE374314235TD from between inboard side of drag brace support fitting, 74A314612 and Subassembly E, WP023 02, figure 8, detail K.

q. Feed Subassembly A as far as possible to the right side to remove boring bar, SPT-RE374314235TD from Subassembly A by removing screws (detail 158). Move boring bar, SPT-RE374314235TD as far outboard as possible while remaining in bushing (detail 270), figure 6, detail E.

r. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 6, detail E.

s. Pivot Subassembly A aft to gain access to remove boring bar, SPT-RE374314235TD from bushing (detail 270), figure 6, detail E.

t. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 6, detail C.

u. Do drag brace spotfacing procedures, this WP.

28. **DRAG BRACE SPOTFACING.** Spray mist coolant tank assembly RE874000002-1, is used during spotfacing per (A1-F18AC-SRM-200, WP004 16).

a. Slide Subassembly A as far as possible to the right hand side of Subassembly E.

b. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 6, detail E.

c. Pivot Subassembly A aft to gain access to insert shaft (detail 213) into bushing (detail 270) and position as far outboard as possible, figure 6, detail L.

d. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly E and tighten upper two set screws (detail 147), figure 6, detail E.

e. From inboard side of Subassembly E, slide spacer (detail 214) onto shaft (detail 213) securing it with two set screws, figure 6, detail M.

f. Feed Subassembly A as far as possible to the side using feed from Subassembly H. Mount shaft (detail 213) into Subassembly A and lock it in place with two set screws (detail 158), figure 6, detail L and M.

NOTE

Check cutter, SPT10-RE374314235TD for sharpness after each operation. Cutter may require resharping.

g. Slide cutter, SPT10-RE374314235TD between Subassembly E and left hand drag brace support fitting 74A314612, onto shaft (detail 213). Rotate cutter, SPT10-RE374314235TD 90° to lock it in place, figure 6, detail L.

h. Install shim (detail 21) onto cutter, SPT10-RE374314235TD using retaining ring (detail 16) to lock it in place, figure 6, detail M.

i. Set depth of spotfacer, SPT10-RE374314235TD according to reading taken during paragraph 21, step c, with stop collar (detail 214), figure 6, detail M.

j. Slide Subassembly A as far as possible to the left side of Subassembly E and still clear plate (detail 190).

k. On Subassembly L, turn LIFT knob switch to PARK position, figure 6, detail J.

l. Remove motor (detail 331) from bracket (detail 43) which is located on right hand side of tool frame.

m. Install motor (detail 331) through lower 4.00 inch diameter hole in plate (detail 191) locking it in place with Subassembly A, figure 6, detail C.



Make sure hoses (detail 354) are connected to proper inlets.

n. Connect hoses (detail 354) to motor (detail 331).

o. On Subassembly L, turn SPINDLE knob switch to FWD LH position and turn FEED knob switch to POWER position. Turn POWER FEED to L.H. position and turn LIFT knob switch to DRIVE position, figure 6, detail J.

p. Power assisted hand feed cutter, SPT10-RE374314235TD to spotface drag brace sleeve 74A314663, using dimension taken from drag brace support fitting reaming, this WP.

q. Back cutter, SPT 10-RE374314235TD from face of drag brace support fitting, 74A314612 and feed Subassembly A as far to the right side by turning SPINDLE knob switch to FWD R.H. Turn SPINDLE knob switch of OFF position, figure 6, detail J.

r. Loosen two set screws attaching spacer (detail 214) onto shaft (detail 213), figure 6, detail M.

s. Unlock retaining ring (detail 16) and remove it and shim (detail 21) from cutter, SPT10-RE374314235TD, figure 6, detail M.

t. Remove shaft (detail 213) from Subassembly A by removing two set screws (detail 158). Unlock cutter, SPT10-RE374314235TD by rotating 90° and slide it between plate (detail 192) and left hand drag brace support fitting, 74A314612, figure 6, detail L and M.

u. Slide spacer (detail 214) from shaft (detail 213), figure 6, detail M.

v. Rotate cutter, SPT10-RE374314235TD 90° on shaft (detail 213) and remove it between drag brace support fitting, 74A314612 and Subassembly E, figure 6, detail M.

w. Loosen two upper set screws (detail 147) and slide upper shaft (detail 275) outboard to clear Subassembly A, figure 6, detail E.

x. Pivot Subassembly A aft to gain access to remove shaft (detail 213) from bushing (detail 270), figure 6, detail L.

y. Rotate Subassembly A back to its upright position. Install shaft (detail 275) through upper portion of Subassembly A and tighten upper two set screws (detail 147).

z. Feed Subassembly A as far as possible to the right side using feed from Subassembly H. Remove shaft (detail 213) from Subassembly A, by unscrewing two set screws (detail 158), figure 6, detail M.

aa. Remove Subassembly E.

(1) Loosen nut (detail 200) two places and remove two swivel washers (detail 199) and two screws (detail 198) from jacking beam (detail 19), figure 1, detail F.

(2) On left hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(3) On right hand side of longeron 74A314612, loosen jack (detail 311) from lower flange of longeron 74A314612. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314612, figure 1, detail K.

(4) On left hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(5) On right hand side of longeron 74A314619, loosen jack (detail 311) from lower flange of longeron 74A314619. Loosen nut (detail 310) and turn clamp assembly (detail 309) from longeron 74A314619, figure 1, detail J.

(6) On left hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 320) from left hand drag brace support fitting, 74A314612. Remove cap screw (detail 321) that is securing clamp (detail 25) to plate (detail 192), figure 1, detail H.

(7) On right hand side of longeron 74A314612, loosen retaining screw (detail 317) and jack (detail 318) from right hand drag brace support fitting, 74A314612. Remove cap screw (detail 319) that is securing clamp (detail 24) to plate (detail 193), figure 1, detail H.

(8) On left hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 323) from left hand trunnion support fitting, 74A314235. Remove cap screw (detail 324) that is securing clamp (detail 26) to plate (detail 190), figure 1, detail G.

(9) On right hand side of longeron 74A314235, loosen retaining screw (detail 322) and jack (detail 325) from right hand trunnion support fitting, 74A314235. Remove cap screw (detail 326) that is securing clamp (detail 27) to plate (detail 191), figure 1, detail G.

(10) On right hand side of drag brace support fitting, 74A314612, remove screw (detail 278) holding bushing (detail 276) to sleeve fitting (detail 296) or (detail 386). Remove bushing (detail 276) and sleeve fitting (detail 296) or (detail 386), figure 6, detail D.

(11) On right hand side of trunnion support fitting 74A314235, remove screw (detail 278) holding bushing (detail 276) to sleeve fitting (detail 304) or (detail 390). Remove bushing (detail 276) and sleeve fitting (detail 304) or (detail 390), figure 6, detail C.

(12) On left hand side of trunnion support fitting 74A314235, remove screw (detail 287) and cap (detail 292) from plug (detail 308), figure 6, detail C.

(13) On right side of drag brace support fitting area 74A314612, remove screw (detail 281) and cap (detail 280) from sleeve fitting (detail 294 or 386), figure 6, detail D.

(14) On right side of trunnion support fitting area 74A314235, remove screw (detail 284) and cap (detail 292) from sleeve fitting (detail 304 or 390), figure 6, detail C.

(15) On right side of trunnion support fitting area 74A314235, remove two nuts (detail 285) holding plug (detail 308) in 2.751 diameter hole in plate (detail 190), figure 6, detail C.

(16) In left side drag brace support fitting area 74A314612, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 192), figure 6, detail D.

(17) In left side trunnion support fitting area 74A314235, remove screw (detail 273) and washer (detail 274) holding pin bushing (detail 272) onto plate (detail 190), figure 6, detail C.

(18) Disconnect hoses (detail 354) from motor (detail 331).

(19) Slide Subassembly A as far as possible to the left side of Subassembly E, still clearing plate (detail 192).

(20) On Subassembly L, turn LIFT knob switch to PARK position, figure 6, detail J.

(21) Remove motor (detail 331) through lower 4.00 diameter hole in plate (detail 193).

(22) Install motor (detail 331) into bracket (detail 43) which is located on lower right hand side of tool frame, figure 6, detail E.



Make sure hoses (detail 354) are connected to proper inlets.

(23) Connect hoses (detail 354) to motor (detail 331).

(24) Remove shoulder screw (detail 404) from shaft end of Subassembly H and clevis (detail 335).

(25) Turn Subassembly H, 60° in block (detail 332) unlocking it from lock buttons (detail 334). Remove Subassembly H through lower hole in plate (detail 192), figure 6, detail E. Attach Subassembly H to left side of tool frame.

(26) On Subassembly L, turn LIFT knob switch to DRIVE position. Turn LIFT knob switch to DOWN and lower lift platform (detail 550) to it's lowest position, figure 6, detail J.

(27) If repair is complete, do locating fixture removal, WP023 02.

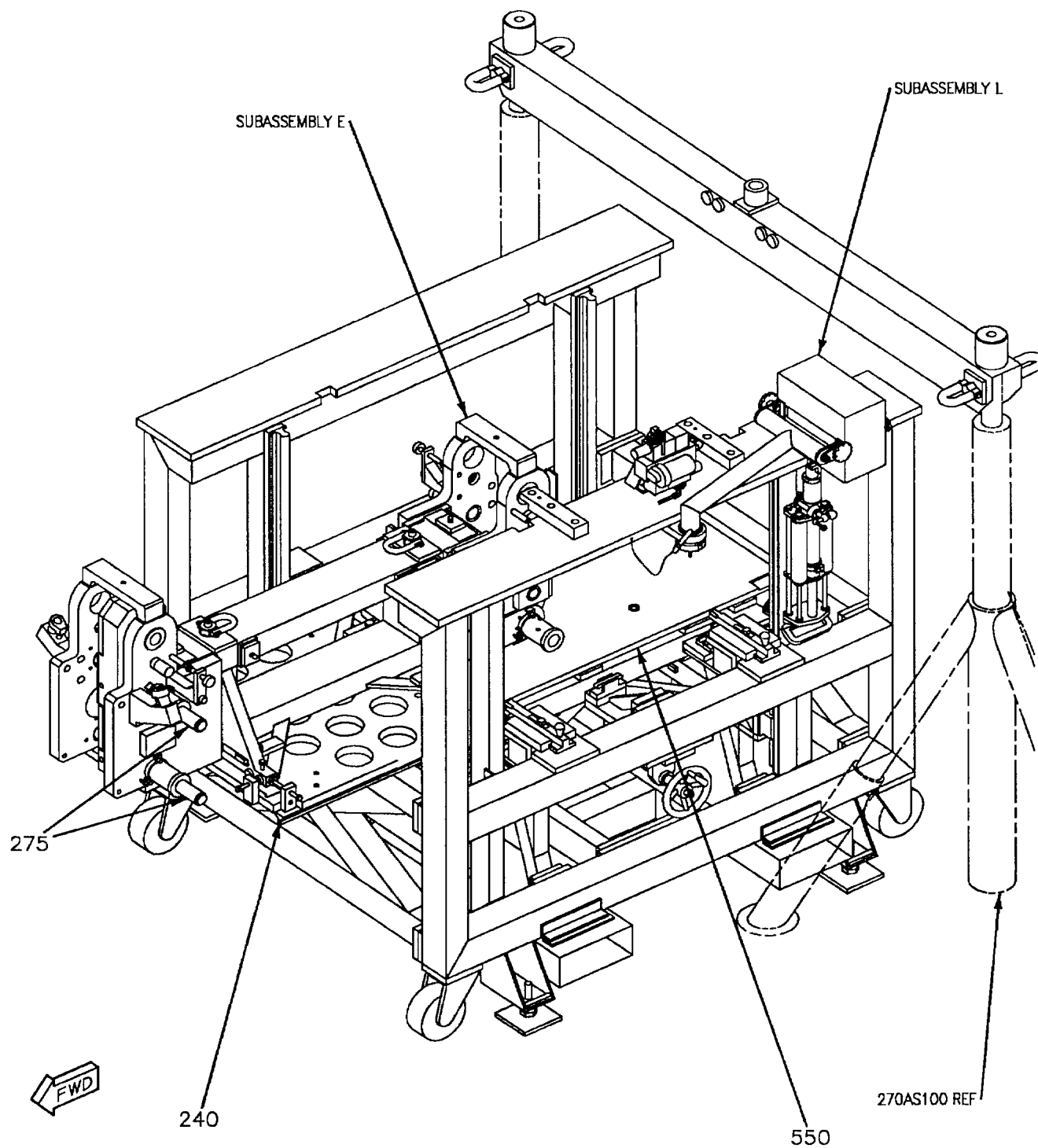


Figure 6. Drag Brace Support Fitting Reaming (Sheet 1)

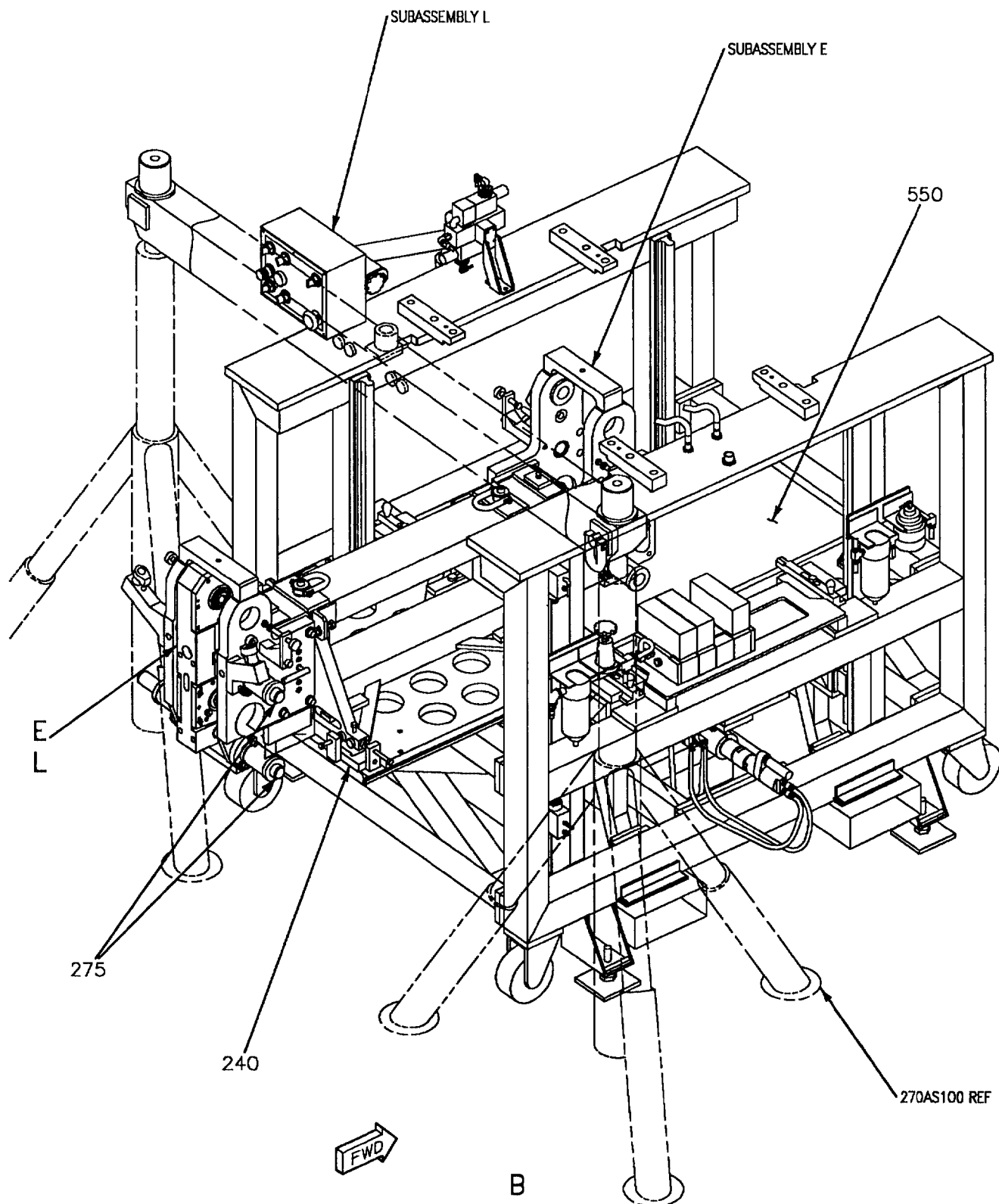


Figure 6. Drag Brace Support Fitting Reaming (Sheet 2)

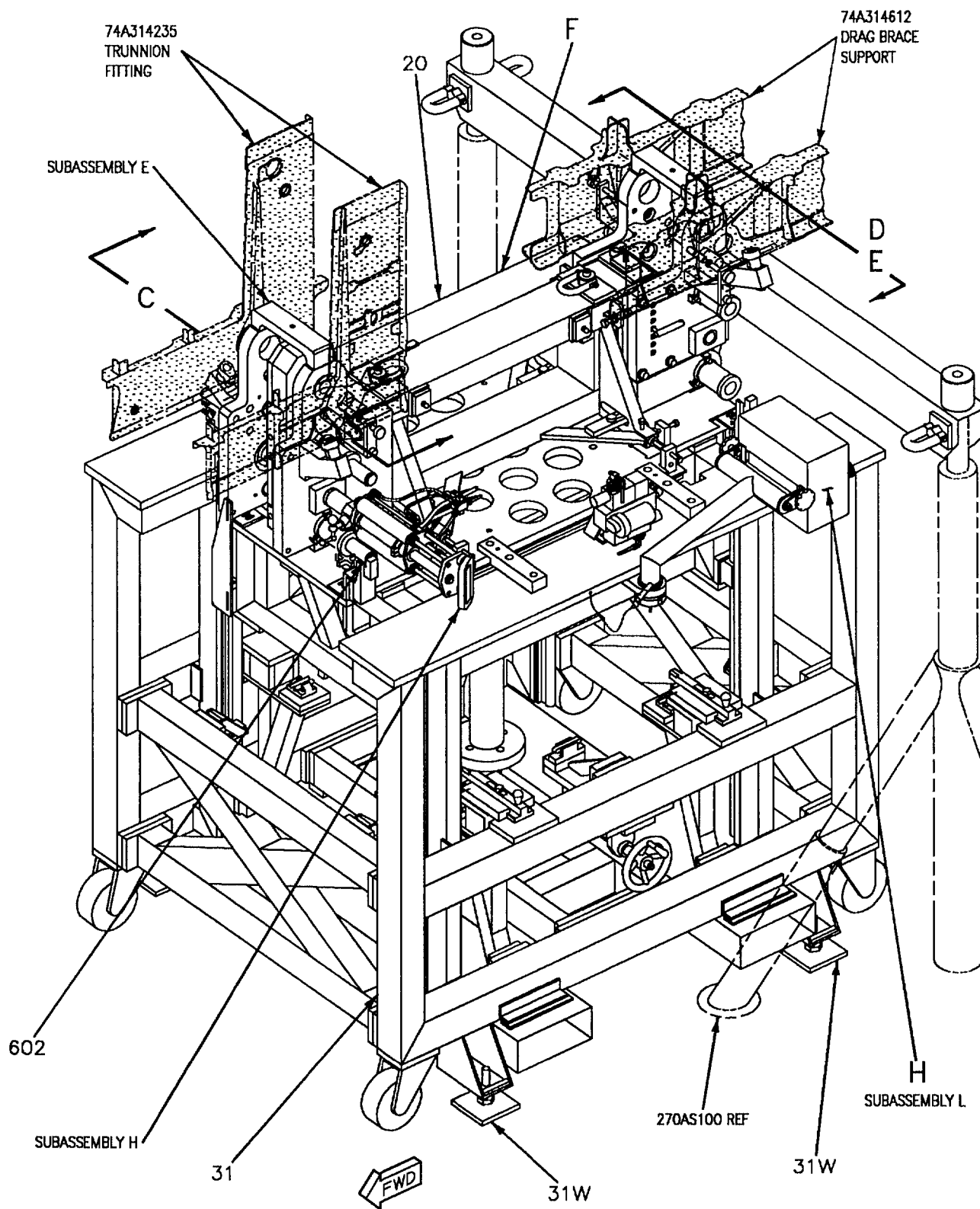
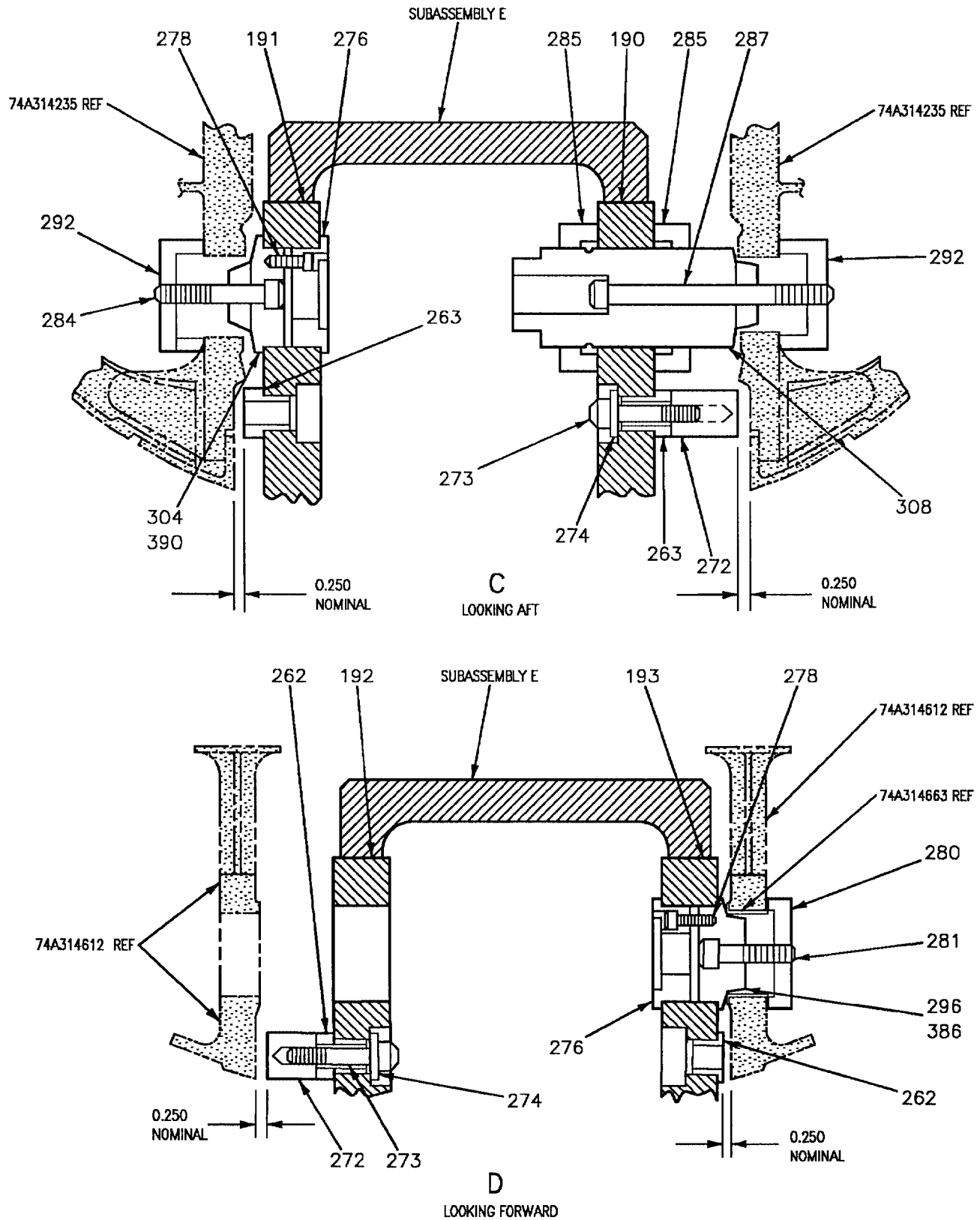


Figure 6. Drag Brace Support Fitting Reaming (Sheet 3)



18AC-SRM-221-(139-4)02-CATI

Figure 6. Drag Brace Support Fitting Reaming (Sheet 4)

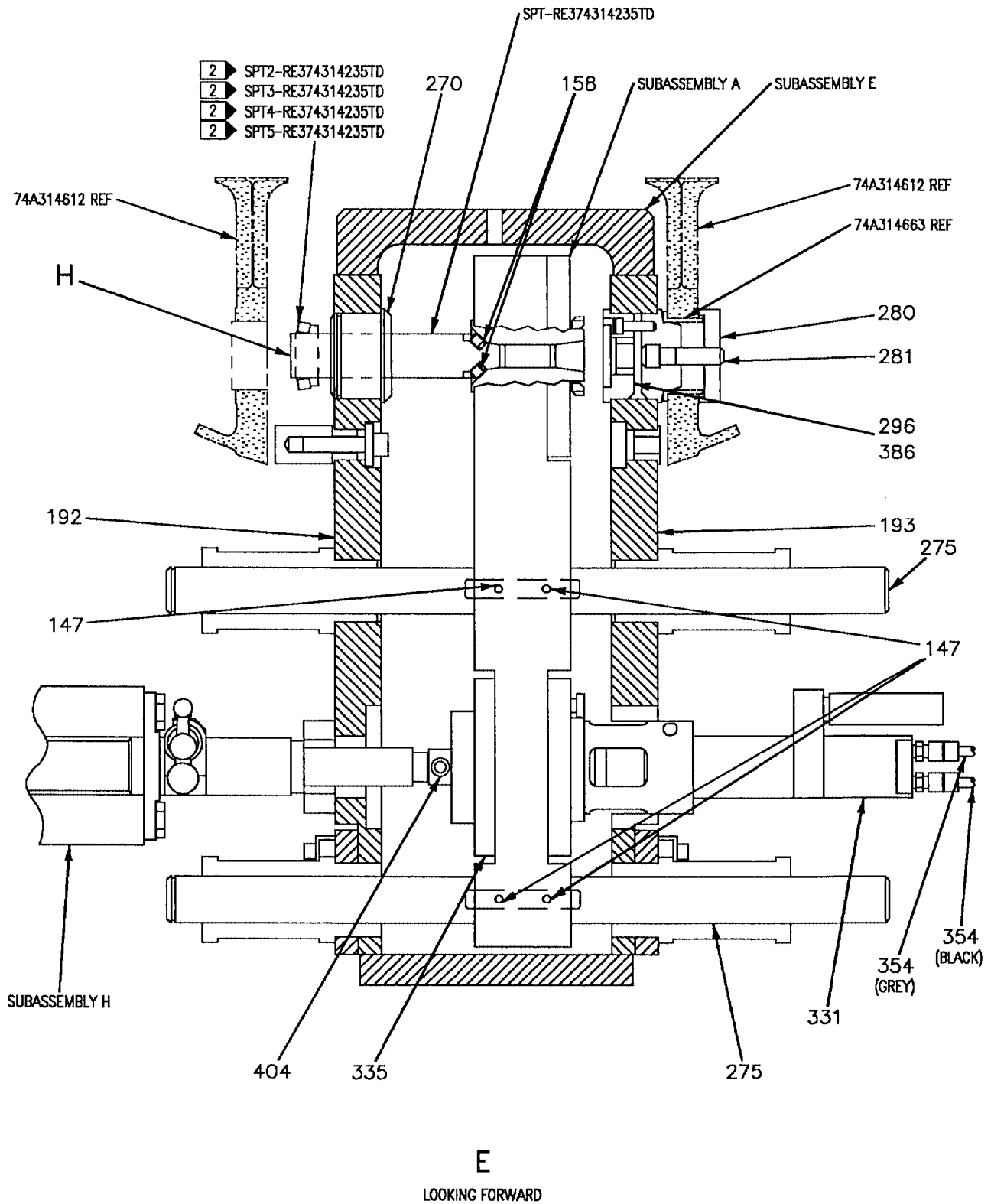
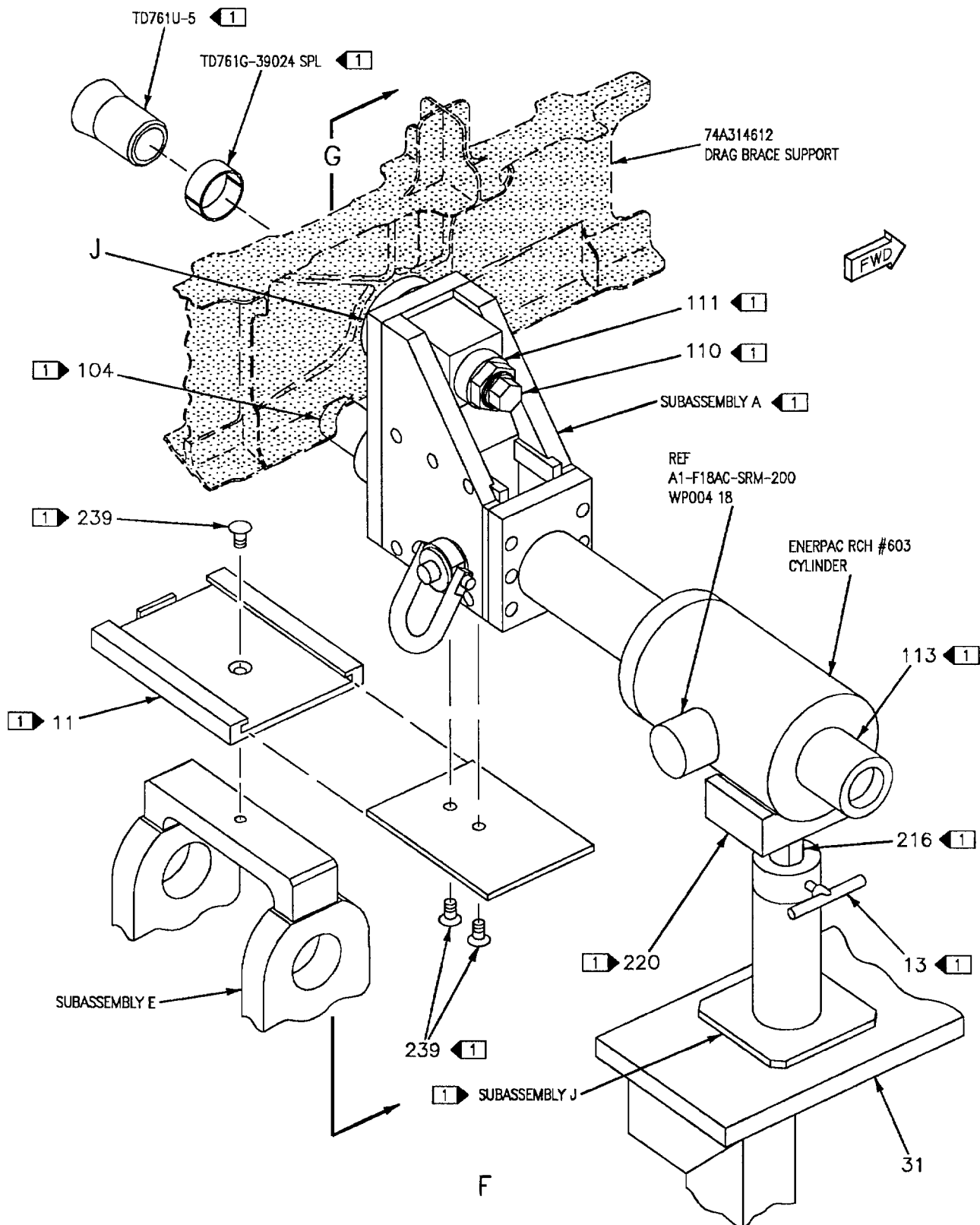


Figure 6. Drag Brace Support Fitting Reaming (Sheet 5)



18AC-SRM-221-(139-6)03-CATI

Figure 6. Drag Brace Support Fitting Reaming (Sheet 6)

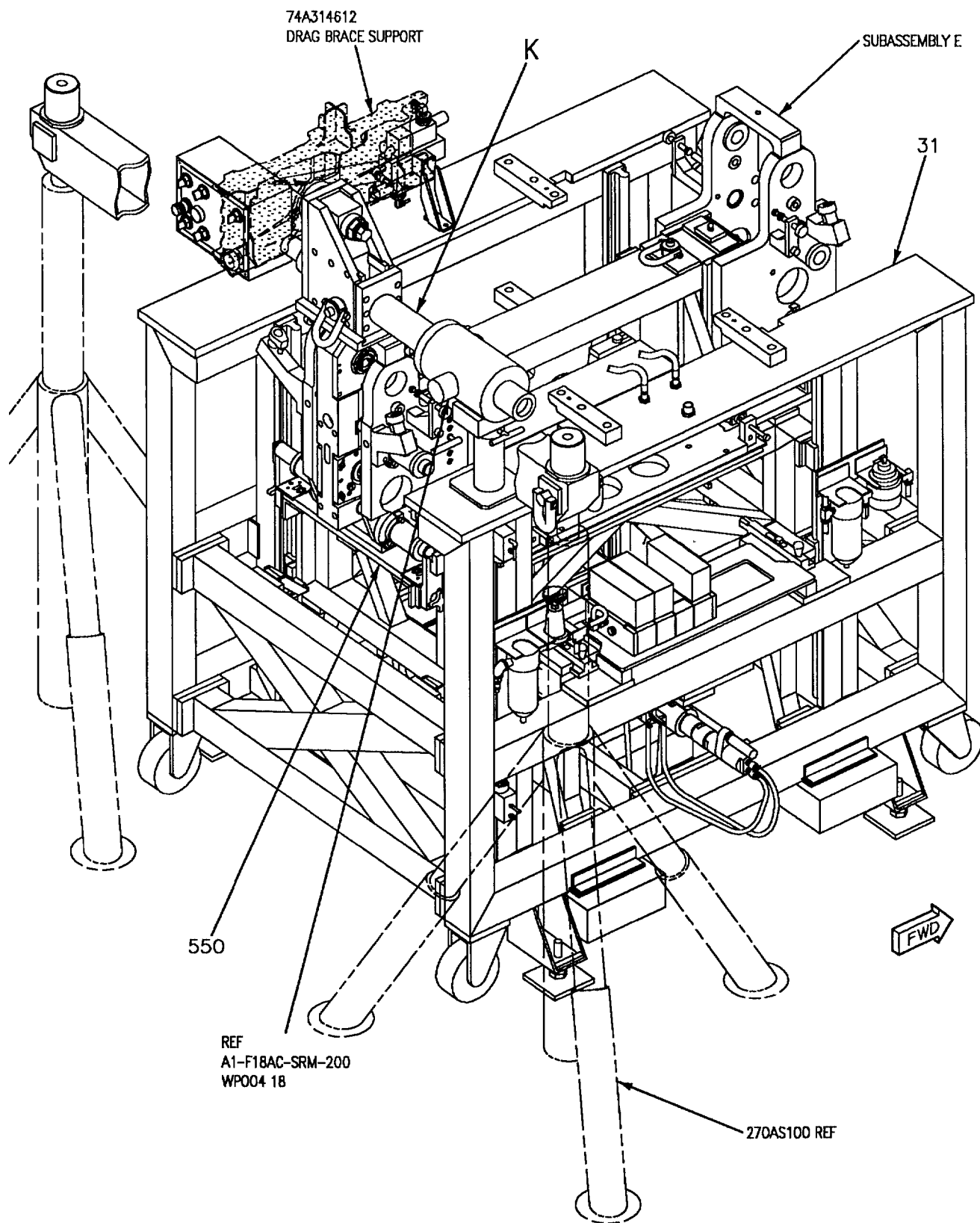
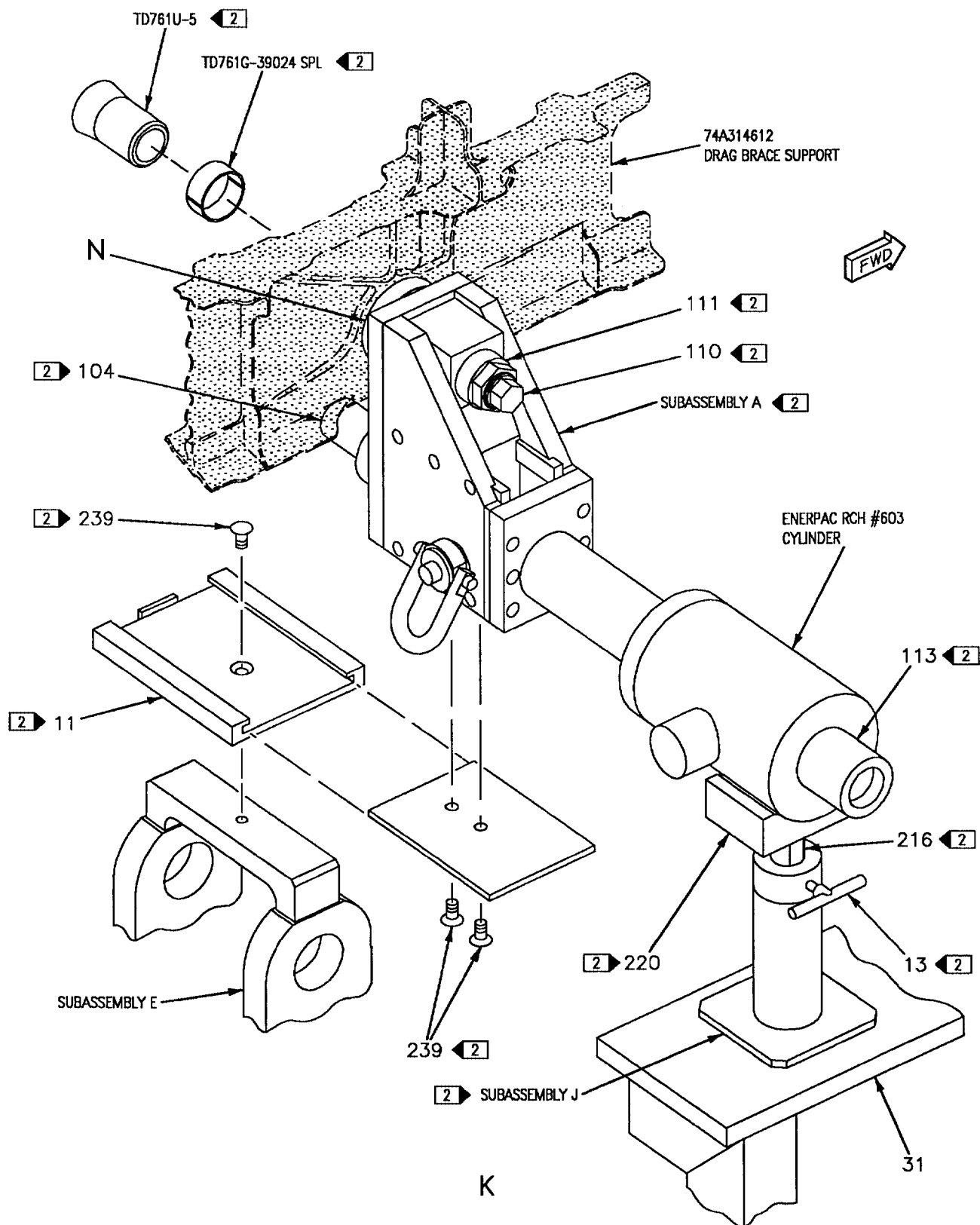
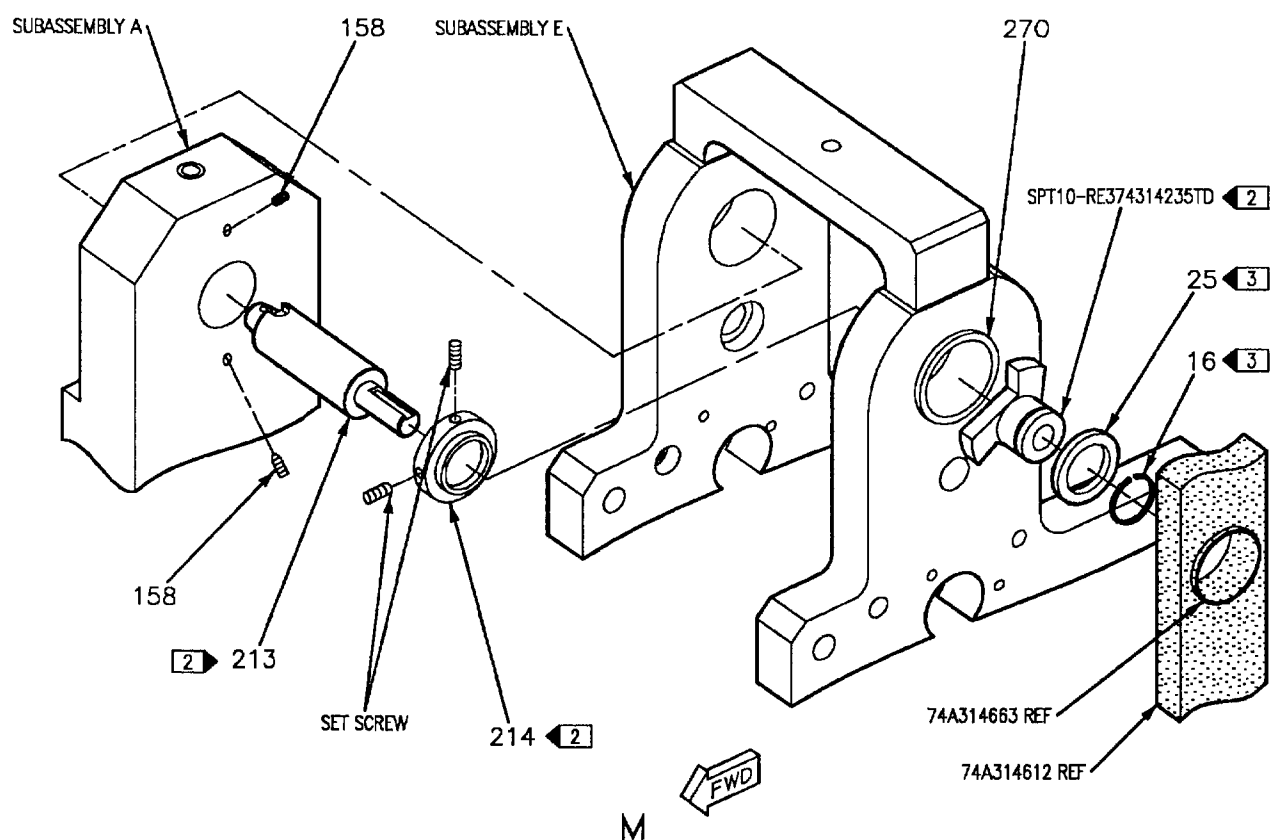
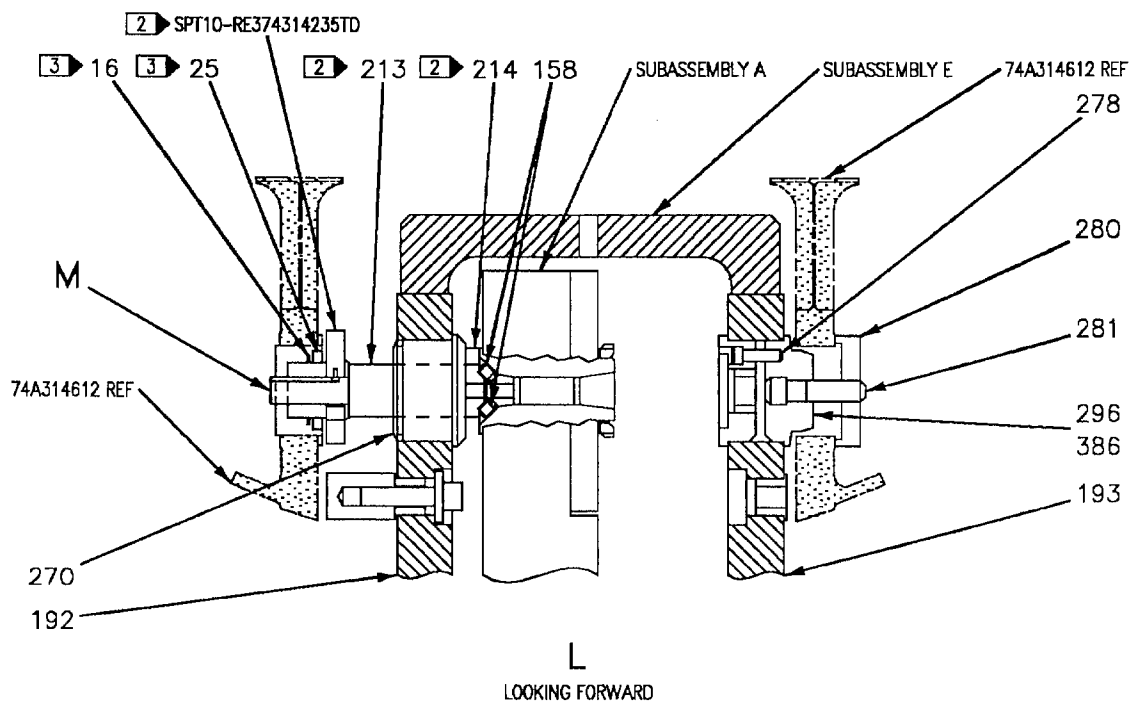


Figure 6. Drag Brace Support Fitting Reaming (Sheet 8)



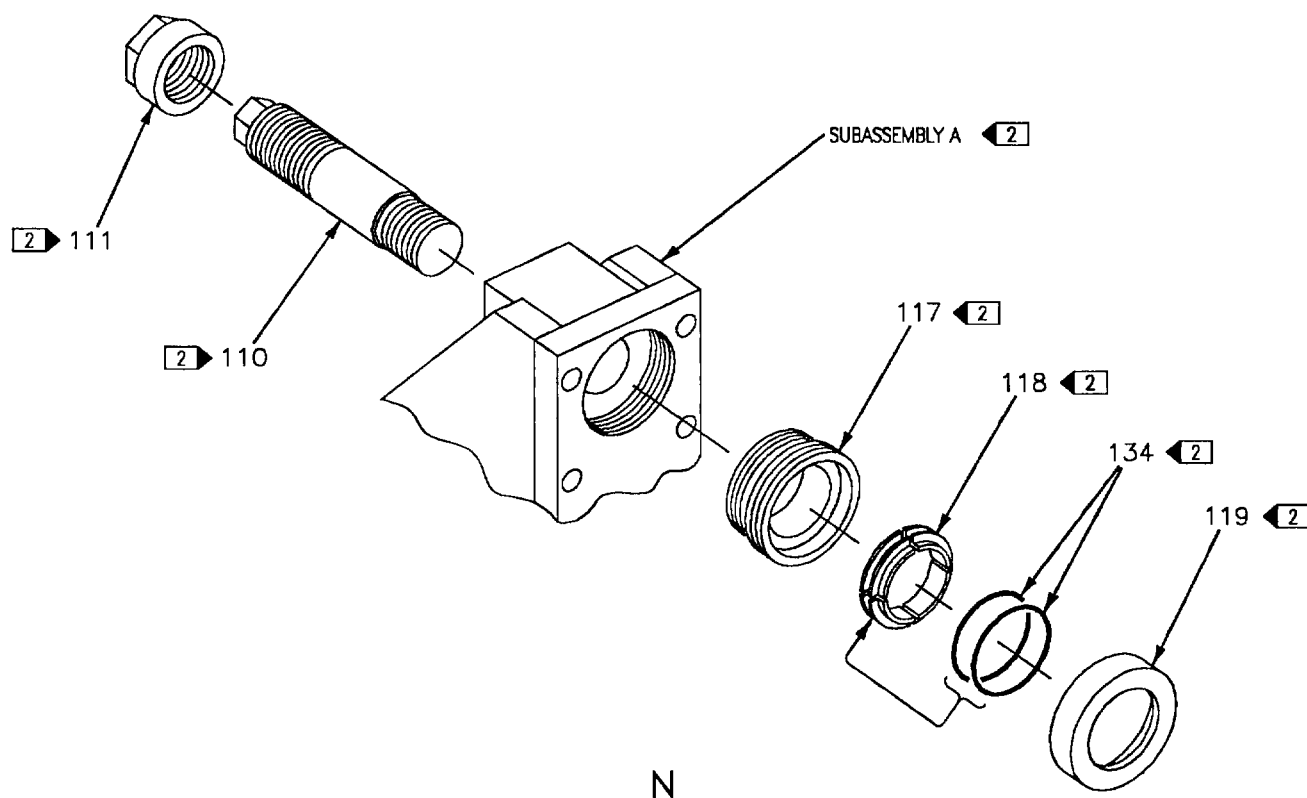
18AC-SRM-221-(139-9)03-CATI

Figure 6. Drag Brace Support Fitting Reaming (Sheet 9)



18AC-SRM-221-(139-10)02-CATI

Figure 6. Drag Brace Support Fitting Reaming (Sheet 10)



LEGEND

- [1] PARTS FLAGGED ARE PART OF SPT2-RE374314235TD, SPT3, SPT4 AND SPT5-RE374314235TD, BORING CARTRIDGE-SUPPORT ASSEMBLY.
- [2] PARTS FLAGGED ARE PART OF RE374314235TD N.L.G. TRUNNION DRAG BRACE SUPPORTS TOOL SET.
- [3] DETAILS 16 AND 25, ARE PART OF SPT10-RE374314235TD, SPOTFACER-SUPPORT ASSEMBLY.

Figure 6. Drag Brace Support Fitting Reaming (Sheet 11)

Detail No.	Name	Function
Subassembly A	Locating Assembly	Used with Subassembly H and motor (detail 331) in operation on trunnion and drag brace bearing operations.
Subassembly A 2	Block	Used to cold work trunnion bearing fitting, 74A314235.
Subassembly E	Locating Fixture	Used to locate tool to trunnion and drag brace bearing sleeves operations.
Subassembly F	Alignment Frame	Checks for correct X plane location in nose landing gear bay.
Subassembly H	Handle Assembly	Used to manual feed Subassembly A in operations on trunnion and drag brace bearing sleeves.
Subassembly J 2	Support Stand	Used to support and align ENERPAC RCH #603 cylinder.
Subassembly L	Control Panel	Houses controls to operate locating fixture.
ENERPAC RCH #202	Cylinder (Depot Furnished)	Used to operate (detail 128) by pushing it outboard, installing trunnion bearing sleeve, 74A314395
ENERPAC RCH #603	Cylinder (Depot Furnished)	Used to operate (detail 114) by pushing it inboard.
TD216G5-23 2	GO/NO GO Plug Gage	Used to check hole diameter in drag brace fitting, 74A314612.
TD761G-39024 SPL 2	Split Sleeve	Used in hole diameter in drag brace fitting, 74A314612.
TD761U-5 2	Mandrel	Used to enlarge hole in drag brace fitting, 74A314612.
SPT-RE374314235TD 2	Boring Bar	Used to align and secure cutters in cutting and spotfacing operations.
SPT2-RE374314235TD 2	Cutter	Used in 1st pass boring before cold working on drag brace fitting, 74A314612.
SPT3-RE374314235TD 2	Cutter	Used in 2nd pass boring before cold working on drag brace fitting, 74A314612.
SPT4-RE374314235TD 2	Cutter	Used in 3rd pass boring after cold working on drag brace fitting, 74A314612.

Figure 6. Drag Brace Support Fitting Reaming (Sheet 12)

Detail No.	Name	Function
SPT5-RE374314235TD 2	Cutter	Used in 4th pass boring after cold working on drag brace fitting, 74A314612.
SPT10-RE374314235TD 2	Cutter	Used to spotface drag brace bearing sleeve, 74A314663.
SPT24-RE374314235TD 2	Cutter	Used to ream in side diameter of drag brace bearing sleeve, 74A314663.
4 1	Locking Screw	Used to secure cutter to boring bar, SPT-RE374314235D.
5 1	Lockscrew	Used to secure cutter to boring bar, SPT-RE374314235TD in boring operations.
11 2	Plate	Used to secure Subassembly A to Subassembly E.
12 2	Support	Used to support and align ENERPAC RCH #202 cylinder.
13 2	T-Screw	Used to hold (detail 216) in position.
16 3	Retaining Ring	Used to hold (detail 25) onto cutter SPT10-RE374314235TD.
19	Jacking Beam	Used to support the aircraft and secure Subassembly E, using (detail 198, 199 and 200).
20	Welded Assembly	Used to attach (detail 240) and becomes a part of Subassembly E.
21 2	Shim	Used to align (detail 213) to inside diameter of 74A314395, bearing sleeve.
23	Support	Pins to Subassembly E with (detail 178) and to Subassembly F with (detail 178) supporting Subassembly F in nose landing gear bay.
24	Clamp	Used to hold 74A314612, right hand trunnion and (detail 193) in the correct position using (detail 319).
25	Clamp	Used to hold 74A314612, left hand trunnion and (detail 192) in the correct position using (detail 321).
25 3	Shim	Used to align (detail 213) to inside diameter of 74A314663, bearing sleeve.
26	Clamp	Used to hold 74A314235, left hand drag brace and (detail 190) in the correct position using (detail 324).

Figure 6. Drag Brace Support Fitting Reaming (Sheet 13)














Detail No.	Name	Function
27	Clamp	Used to hold 74A314235, right hand drag brace and (detail 191) in the correct position using (detail 326).
31	Fixture	Used to support Subassembly E.
31W	Leveling feet	Used to level the fixture (detail 31).
43	Bracket	Holds Subassembly R on the lower right hand side of the tool frame when not in use on Subassembly F.
45	Welded Assembly	Used to align Subassembly E when not attached to aircraft in the trunnion area.
104 	Shaft	Used to align ENERPAC RCH #603 cylinder and drive Subassembly A.
110 	Bolt	Used to secure mandrel TD761U-5, to Subassembly A.
111 	Nut	Used to take up slack between (detail 110) and (detail 171).
113 	Nut	Used to secure ENERPAC RCH #603 cylinder to Subassembly A.
117 	Coupling	Used to align (detail 110) and house (detail 118) and (detail 134).
118 	Sleeve	Used to house (detail 134) and align (detail 110).
119 	Cap	Used to secure (detail 117) to Subassembly A.
130 	Sleeve Fitting	Used to align (detail 142) through 74A314663 bearing sleeve.
131 	Cap	Used to secure (detail 142) into drag brace fitting, 74A314612.
134 	O'Rings	Used with (detail 118) to align TD761U-28 mandrel.
142 	Threaded Stud	Used to secure sleeve fitting (detail 123 and 130) to (detail 131).
143 	Nut, Hex	Used to secure (detail 128) and (detail 144) onto ENERPAC RCH #202 cylinder.
144 	Washer	Used with (detail 143) to take up slack on (detail 128).
147	Set Screws	Used to secure shaft (detail 275) to Subassembly A.
158	Set Screws	Used to lock in place shaft (detail 213) into Subassembly A.
176	L-Brackets	Used to check for correct X plane between 74A314208 plates.

Figure 6. Drag Brace Support Fitting Reaming (Sheet 14)






Detail No.	Name	Function
177	Bushing	Used to check for correct X plane between 74A314208 plate.
178	L-pins	Aligns support locator (detail 23) in nominal position.
190	Plate	Part of Subassembly E, used to align and for attaching components on left hand side in trunnion support area.
191	Plate	Part of Subassembly E, used to align and for attaching components on right hand side in trunnion support area.
192	Plate	Part of Subassembly E, used to align and for attaching components on left hand side of drag brace area.
193	Plate	Part of Subassembly E, used to align and for attaching components on right hand side of drag brace area.
198	Screw	Attach (detail 19) to Subassembly E with (detail 199 and 200).
199	Swivel Washer	Used on forward and aft side of (detail 19) with (detail 198 and 200) to attach (detail 19) to Subassembly E.
200	Nuts	Used on forward side of (detail 19) with (detail 198) to attach (detail 19) to Subassembly F.
213 	Shaft	Used to align and secure cutters, to Subassembly A.
214 	Spacer	Used to gage amount that SPT10-RE374314235TD can take off of trunnion sleeve, 74A314395.
215	Screw	Used to adjust center to center distance in right and left hand fitting areas.
216 	Shaft	Used with (detail 220) to support ENERPAC RCH #603 cylinder.
218	Busing	Attach (detail 219) by locking it into Subassembly A with (detail 158).
219	Indicator	Used to verify if bearing sleeve will clean up.
220	Blade	Used with (detail 218 and 219) in verifying that bearing sleeve will clean up.
220 	Support Fitting	Supports ENERPAC RCH #603 cylinder with (detail 216).
222 	Sleeve Fitting	Used to secure (detail 131) into drag brace fitting 74A314663, bearing sleeve.

Figure 6. Drag Brace Support Fitting Reaming (Sheet 15)


Detail No.	Name	Function
239 	Cap Screw	Used to Secure (detail 11) to Subassembly E.
240	Plate	Used to support and lift Subassembly E.
242	Adjusting Screws	Used to adjust (detail 304) right hand trunnion fitting.
243	Adjusting Screws	Used with (detail 242) to adjust (detail 304) into right hand trunnion fitting.
244	Clamp	Used to secure Subassembly E to (detail 20) and (detail 240).
245	Bolt	Used to secure (detail 244) to (detail 240).
248	Adjusting Screws	Used to adjust height of Subassembly E from (detail 240).
258	Plate	Used to secure (detail 190 and 191) together, attaching it with (detail 380).
261	Bushing	Used to align shaft (detail 620) for correct X plane on Subassembly E.
262	Bushing	Used to check for correct X plane location in left hand drag brace area.
263	Bushings	Used to check for correct X plane location in left and right hand trunnion area.
264	L-pins	Used to secure (detail 192) and (detail 20) in drag brace area.
267	Screws	Used to lock in place (detail 192) and (detail 20).
270	Bushing	Used to guide (detail 213) into Subassembly A.
271	Screw	Used to secure (detail 382) to (detail 190).
272	Holding Pin Bushing	Used to check for correct X plane location in left hand trunnion and drag brace area.
273	Screws	Used to secure (detail 272) to (detail 190 and 192).
274	Washers	Used with (detail 273) to secure (detail 272) to (detail 190 and 192).
275	Shaft	Used to support Subassembly A in Subassembly E attached with (detail 147).
276	Bushings	Installed into (detail 191 and 193) secured to (detail 296 or 304) with (detail 278).

Figure 6. Drag Brace Support Fitting Reaming (Sheet 16)

Detail No.	Name	Function
278	Screw	Used to secure (detail 276) to sleeve fitting (detail 296) in right hand drag brace area and (detail 304) in right hand trunnion area.
280	Cap	Used to take up the slack in Z plane in drag brace area. Secured with (detail 280 and 281).
281	Screw	Used to secure (detail 280) to right hand drag brace fitting, 74A314612.
284	Screw	Used to secure (detail 304) to right hand trunnion fitting, 74A314235.
285	Nuts	Used to lock (detail 308) into (detail 190).
287	Screw	Used to secure (detail 292) and take up slack between 74A314235 and (detail 308) on left hand trunnion fitting area.
292	Cap	Used to take up the slack in Z plane in trunnion area. Secured with (detail 284 and 304).
296	Sleeve Fitting	Installed into (detail 193), secured to (detail 276) with (detail 278).
304	Sleeve Fitting	Installed into (detail 191), secured to (detail 276) with (detail 278).
308	Plug	Used to line up left hand trunnion fitting, 74A314235, with (detail 285).
309	Clamp Assemblies	Used to secure 74A314612 and 74A314619 longeron.
311	Jacks	Used to take up slack between (detail 309), 74A314612 and 74A314619 longeron.
312	Screws	Used to attach (detail 313, 314, 315 and 316) to Subassembly E.
313	Block	Attached to (detail 193) and used as support for (detail 309).
314	Block	Attached to (detail 192) and used as support for (detail 309).
315	Block	Attached to (detail 190) and used as support for (detail 309).
316	Block	Attached to (detail 191) and used as support for (detail 309).
317	Retaining Screws	Used to secure left and right hand longeron 74A314612 to Subassembly E.
318	Jack	Used to help secure right hand longeron 74A314612 to Subassembly E.

Figure 6. Drag Brace Support Fitting Reaming (Sheet 17)

Detail No.	Name	Function
319	Cap Screw	Used to attach (detail 24) to (detail 193).
320	Jack	Used to help secure left hand longeron 74A314612 to Subassembly E.
321	Cap Screw	Used to attach (detail 25) to (detail 192).
322	Retaining Screws	Used to secure left and right hand trunnion support 74A314235 to Subassembly E.
323	Jack	Used to help secure left hand trunnion support 74A314235 to Subassembly E.
324	Cap Screw	Used to attach (detail 26) to (detail 190).
325	Jack	Used to help secure right hand trunnion support 74A314235 to Subassembly E.
326	Cap Screw	Used to attach (detail 27) to (detail 191).
331	Motor	Used to operate the system.
332	Block	Attached to Subassembly E and used as a guide for Subassembly H.
334	Lock Buttons	Used to lock Subassembly H into place on Subassembly E.
335	Clevis	Used to attach Subassembly H to Subassembly A, secured with (detail 404).
354	Hoses	Used to provide pressure to motor (detail 331).
382	Stop Shoulder	Used to hold (detail 270) in place with (detail 271).
386	Sleeve Fitting	Used in replacement support fitting in drag brace 74A314612, for reaming and spotfacing.
390	Sleeve Fitting	Used in replacement support fitting in trunnion 74A314395, for reaming and spotfacing.
404	Shoulder Screw	Used to secure (detail 335) and Subassembly H.
423	Washer	Used with cap screw to adjust dovetail guide (detail 606) up or down to position shaft (detail 260 or 275) in trunnion area.
434	Power Button	Used to activate the system.
446	Pressure Regulator	Used to control pressure to regulate (detail 550) lift speed.

Figure 6. Drag Brace Support Fitting Reaming (Sheet 18)

Detail No.	Name	Function
478	Fittings	Used to connect hoses (detail 354) to motor (detail 331) when installed on Subassembly A.
550	Lift Platform	Used to lift Subassembly E up or down.
599	Knob	Used to secure (detail 45) to lift platform (detail 550) in trunnion area.
601	Guide	Used to align Subassembly E, when not attached to aircraft and supports either (details 260 or 275) in trunnion area.
602	Shaft	Used to align support Subassembly E, when not attached to aircraft.
603	Plate	Attached to (detail 550) with two cap screws, also as a supporting plate for (detail 607).
604	Guide	Used to align Subassembly E, when not attached to aircraft and supports either (details 260 or 275) in drag brace area.
605	Knob	Used to secure guide (detail 604) into dovetail slide (detail 607).
606	Dovetail Slide	Used to make adjustments on leveling Subassembly E in trunnion area when not attached to aircraft.
607	Dovetail Slide	Used to make adjustments on leveling Subassembly E in drag brace area when not attached to aircraft.
608	Nose Dowel Pins	Used to align guide (detail 604) into bullet nose bushings (detail 609) which are installed in dovetail slide (detail 607).
609	Bullet Nose Bushings	Used to align nose dowel pins (detail 608) which are installed in guide (detail 604).
610	Locator Pin	Used to align (detail 550) to (detail 240).
611	Locator Bushing	Used to align (detail 240) to (detail 550).
614	Guide Pin	Used to align plate (detail 603) up with lift platform (detail 550).
LEGEND		
<div>1</div> Part flagged is part of SPT2-RE374314235TD, SPT3, SPT4 and SPT5-RE374314235TD, Boring Cartridge - Support Assembly.		
<div>2</div> Parts flagged are part of RE374314235 N.L.G. Trunnion Drag Brace Supports Tool Set.		
<div>3</div> Details 16 and 25, are part of SPT10-RE374314235TD Spotfacer - Support Assembly.		

Figure 6. Drag Brace Support Fitting Reaming (Sheet 19)

29. SET UP AND INSTALLATION OF SUBASSEMBLY B. Figure 7.

a. Locate aft nose landing gear door hinge, 74A314253 and three leveling lugs, 74A314233, detail B.

b. On Subassembly B, slide both plugs (detail 123) as far inboard as possible on pin (detail 125), detail B.

c. Lift Subassembly B into aft nose landing gear door opening and slide both plugs (detail 123) outboard and into bearing sleeves, 74A314395 in trunnion fittings 74A314235, detail B.

d. Pin forward most hinge fitting, 74A314254 and angle (detail 17) with pin (detail 416), detail C.

e. Check forward and aft hinge fittings locations with equal feelers 0.050 nominal, detail C and D.

(1) If forward most hinge fitting 74A314254, can not be pinned, rig Subassembly B inboard and outboard by setting C/B #4 and C/B #5 at X. -3.0600 and up and down by setting C/B #5 at Z. 87.2900, detail E and F.

(2) Support forward end of Subassembly B from the floor.

f. Slide both plugs (detail 123) against head of trunnion bearing sleeve 74A314395 and tighten set screws (detail 126) against pin (detail 125), detail B.

g. Check remaining hinge fittings 74A314253 by pinning through angle (detail 18) with pin (detail 416) three places, detail D.

(1) If any hinge fitting 74A314253, has to be replaced, locate it by pinning with pin (detail 416) and equal feelers 0.050 nominal to angle (detail 18), detail D.

h. Check upper edge of leveling lugs 74A314233, to be flush with upper surface of spacer (detail 113, 114 and 115).

(1) If any new leveling lugs 74A314233 have been installed, file flush with upper surface of spacer (detail 113, 114 and 115).

i. Remove Subassembly B.

(1) Remove middle two pins (detail 416) from angles (detail 18), detail D.

(2) Loosen set screws (detail 126) that are hold plugs (detail 123) against pin (detail 125), detail B.

(3) Remove forward most pin (detail 416) from angle (detail 17), detail C.

(4) Slide both plugs (detail 123) inboard as far as possible on pin (detail 125), detail B.

(5) Lower Subassembly B from nose landing gear opening.

(6) If repair is complete, do locating fixture removal, WP023 02.

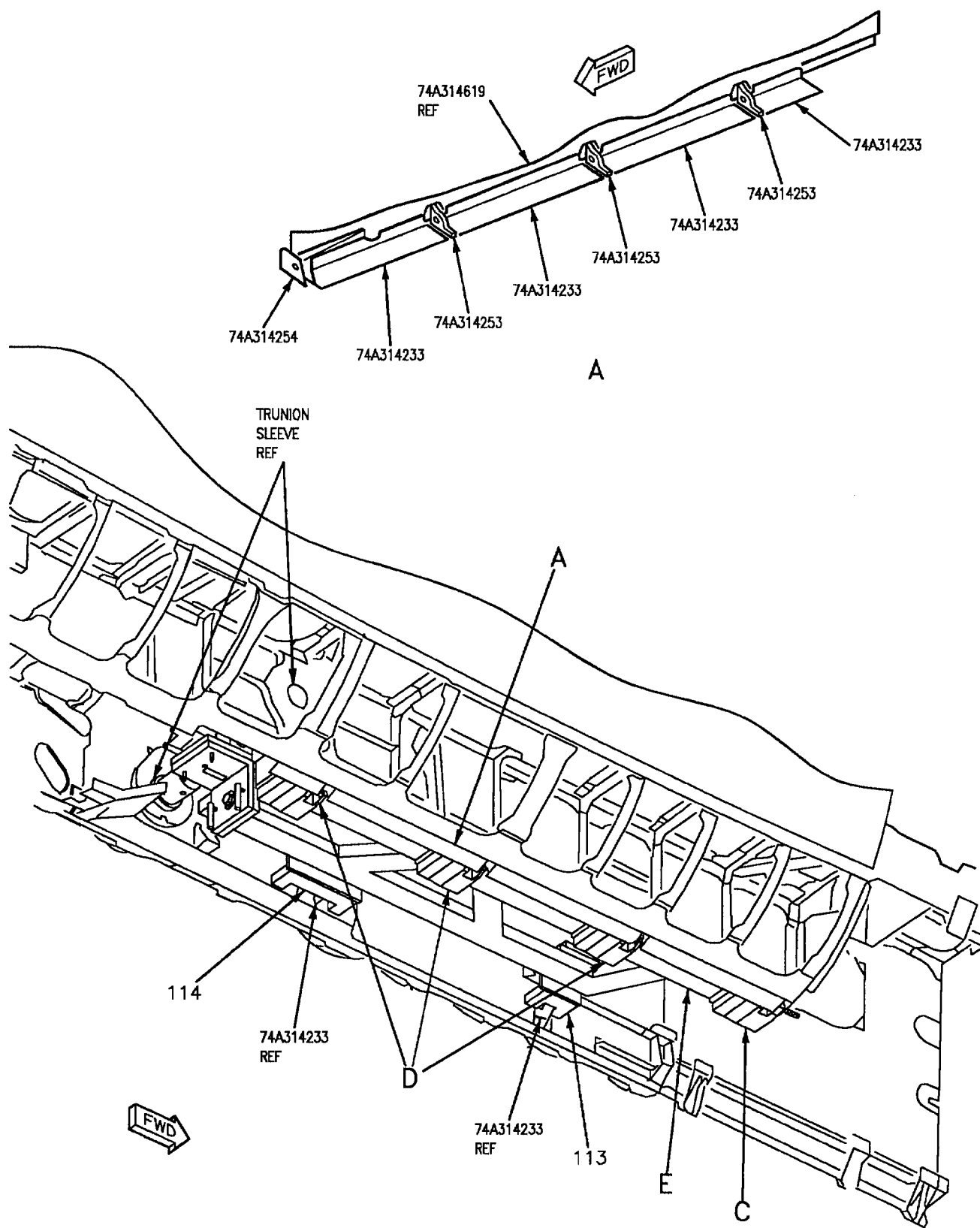


Figure 7. Set Up And Installation Of Subassembly B (Sheet 1)

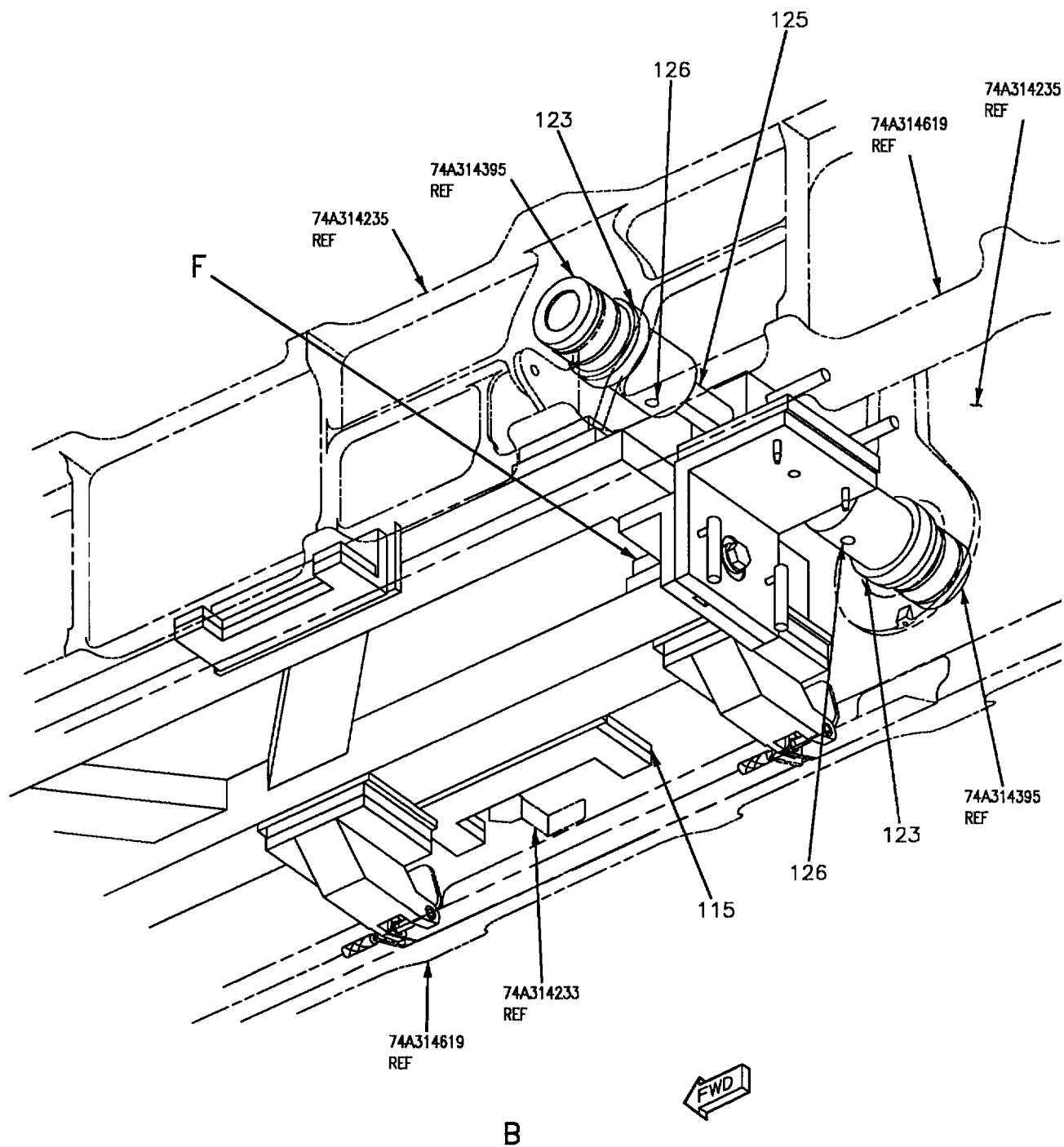
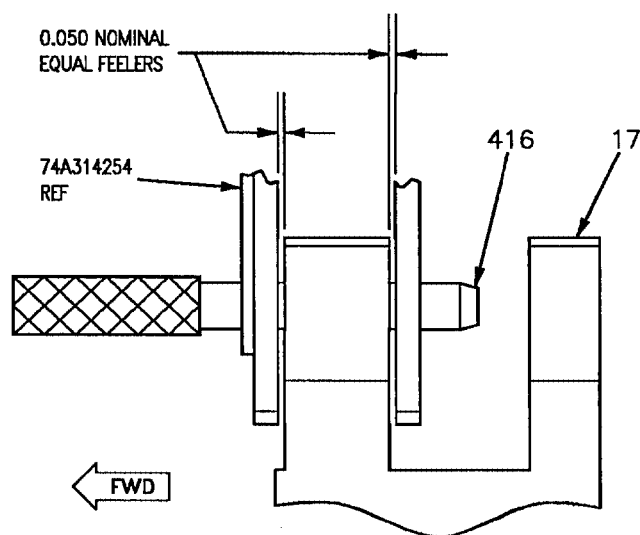
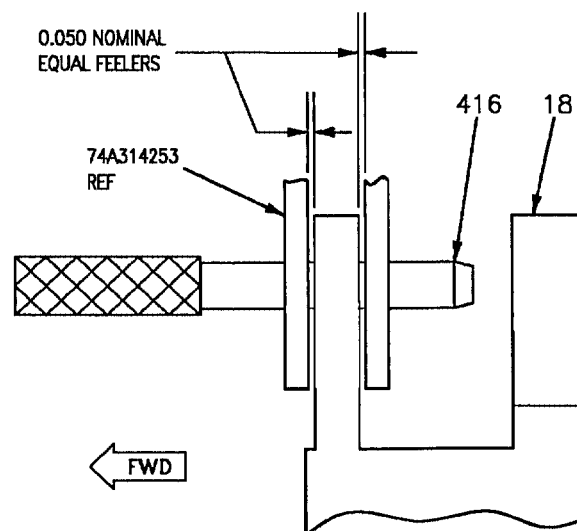


Figure 7. Set Up And Installation Of Subassembly B (Sheet 2)

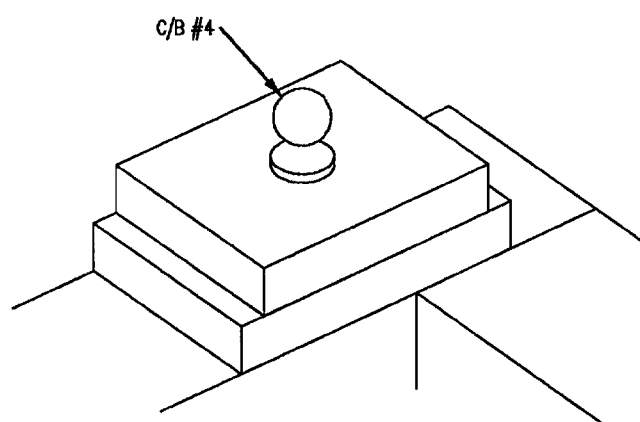


LOOKING DOWN

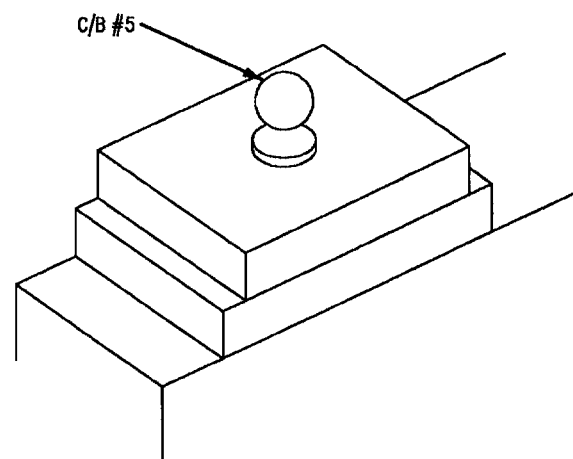
C

LOOKING DOWN
TYPICAL THREE PLACES

D



F



E

Figure 7. Set Up And Installation Of Subassembly B (Sheet 3)

Detail No.	Name	Function
Subassembly B	Hinge Fixture	Used to align nose landing gear door hinges.
17	Angle	Used along with (detail 416) to secure Subassembly B into nose landing gear door area.
18	Angle	Used along with (detail 416) to secure Subassembly B into nose landing gear door area.
113	Spacer	Used to support leveling lug 74A314233, on right hand side.
114	Spacer	Use to support leveling lug 74A314233, on aft left hand side.
115	Spacer	Used to support leveling lug 74A314233, on fwd left hand side.
123	Plugs	Used to support Subassembly E, by engaging in 74A314395 bearing sleeves in left and right hand trunnion fittings.
125	Pin	Used to align (detail 123) in X plane.
126	Set Screws	Used to secure (detail 123) to (detail 125).
416	Pins	Use to secure (detail 17 and 18) to nose landing gear door hinges.

Figure 7. Set Up And Installation Of Subassembly B (Sheet 4)

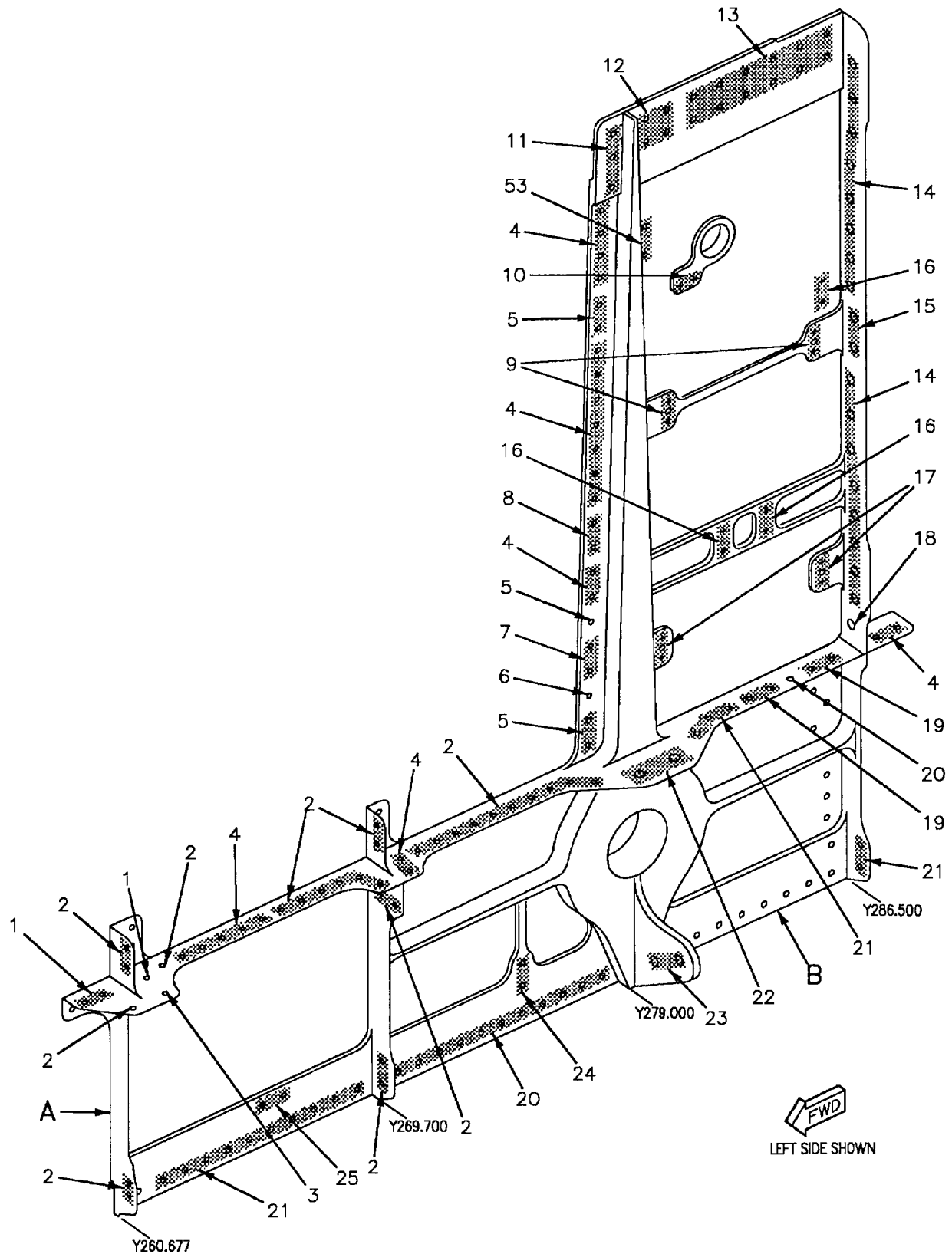


Figure 8. Trunnion Support Fitting, 74A314235, Fastener Index (Sheet 1)

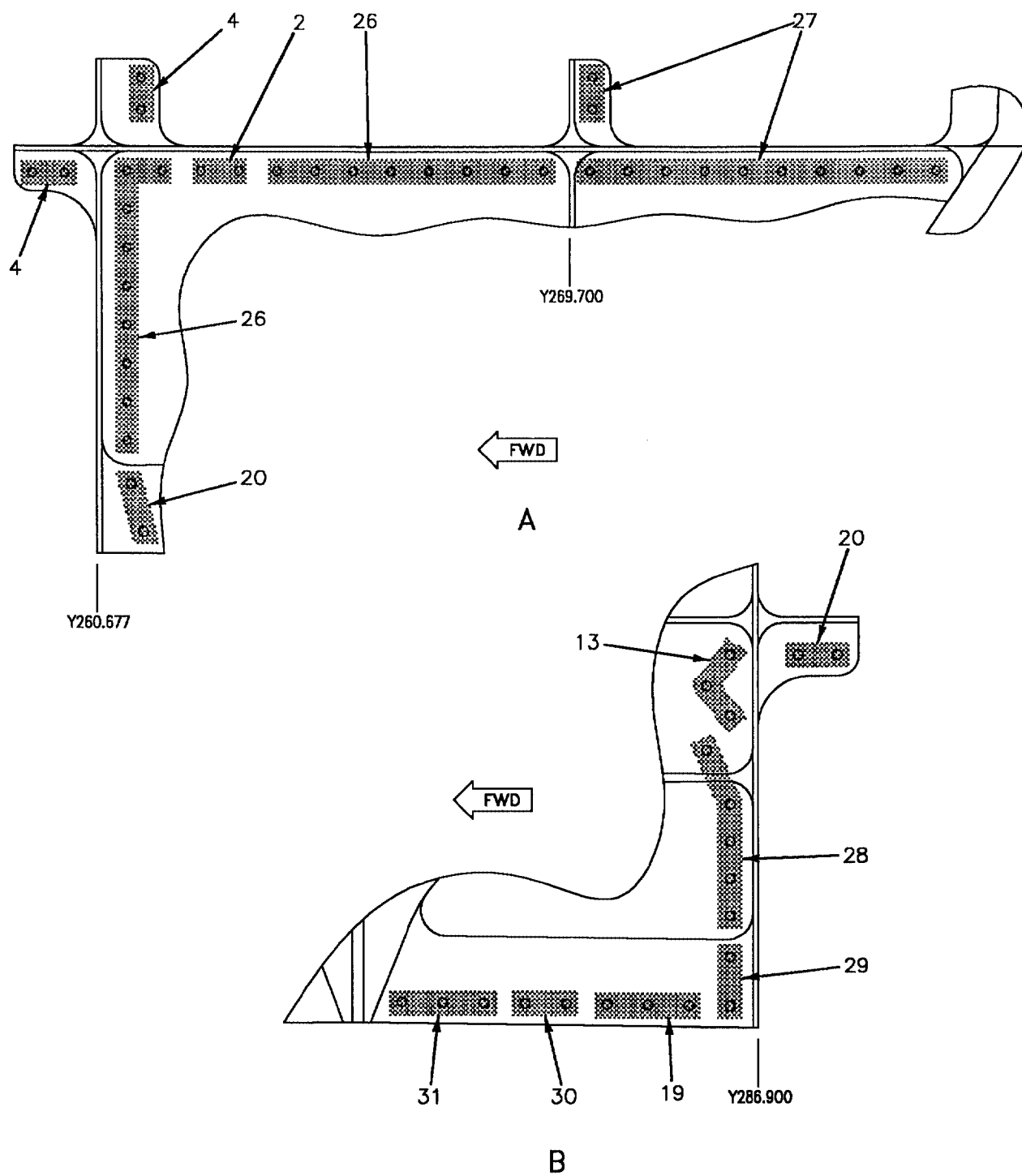
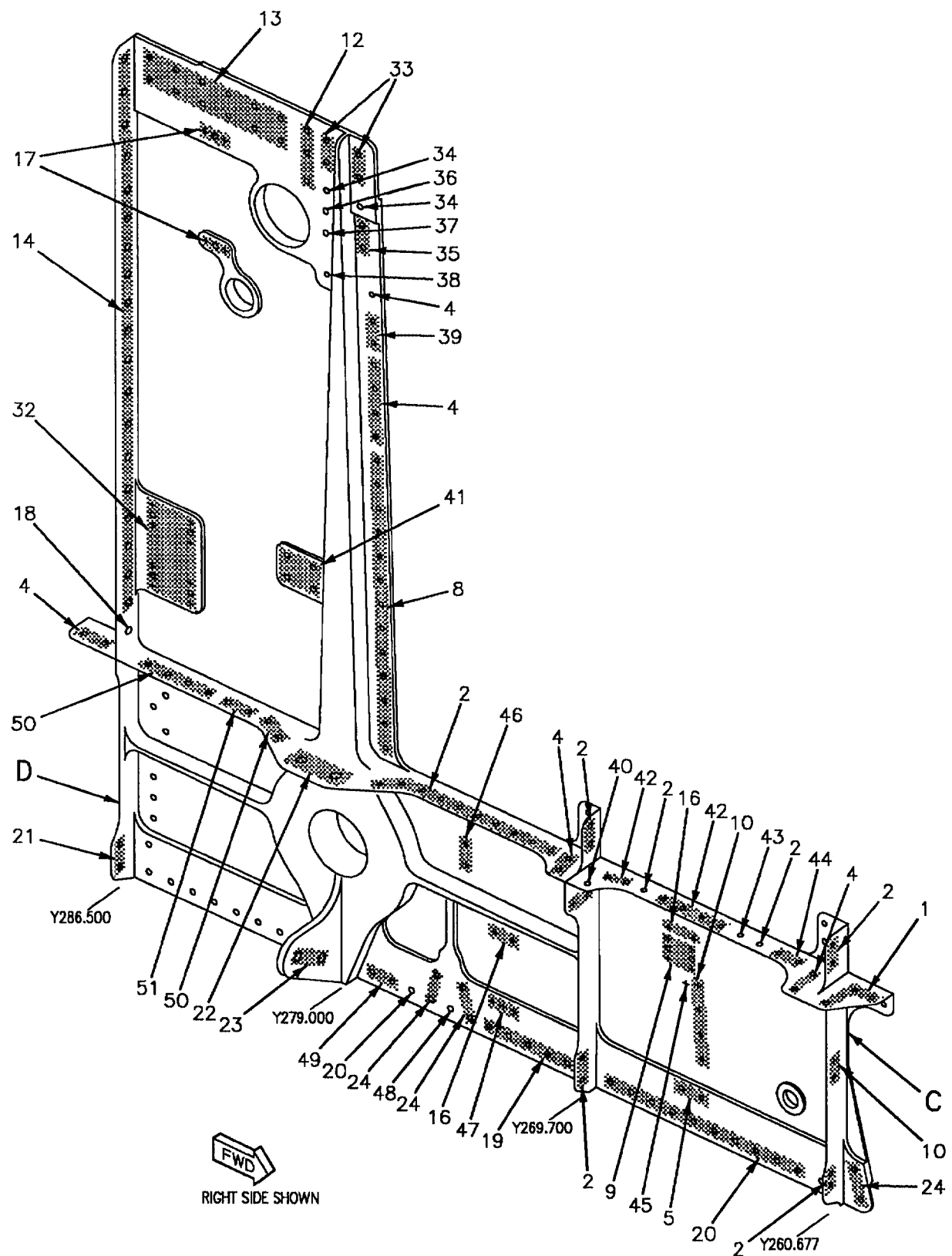


Figure 8. Trunion Support Fitting, 74A314235, Fastener Index (Sheet 2)



18AC-SRM-221-(141-3)03-CATI

Figure 8. Trunnion Support Fitting, 74A314235, Fastener Index (Sheet 3)

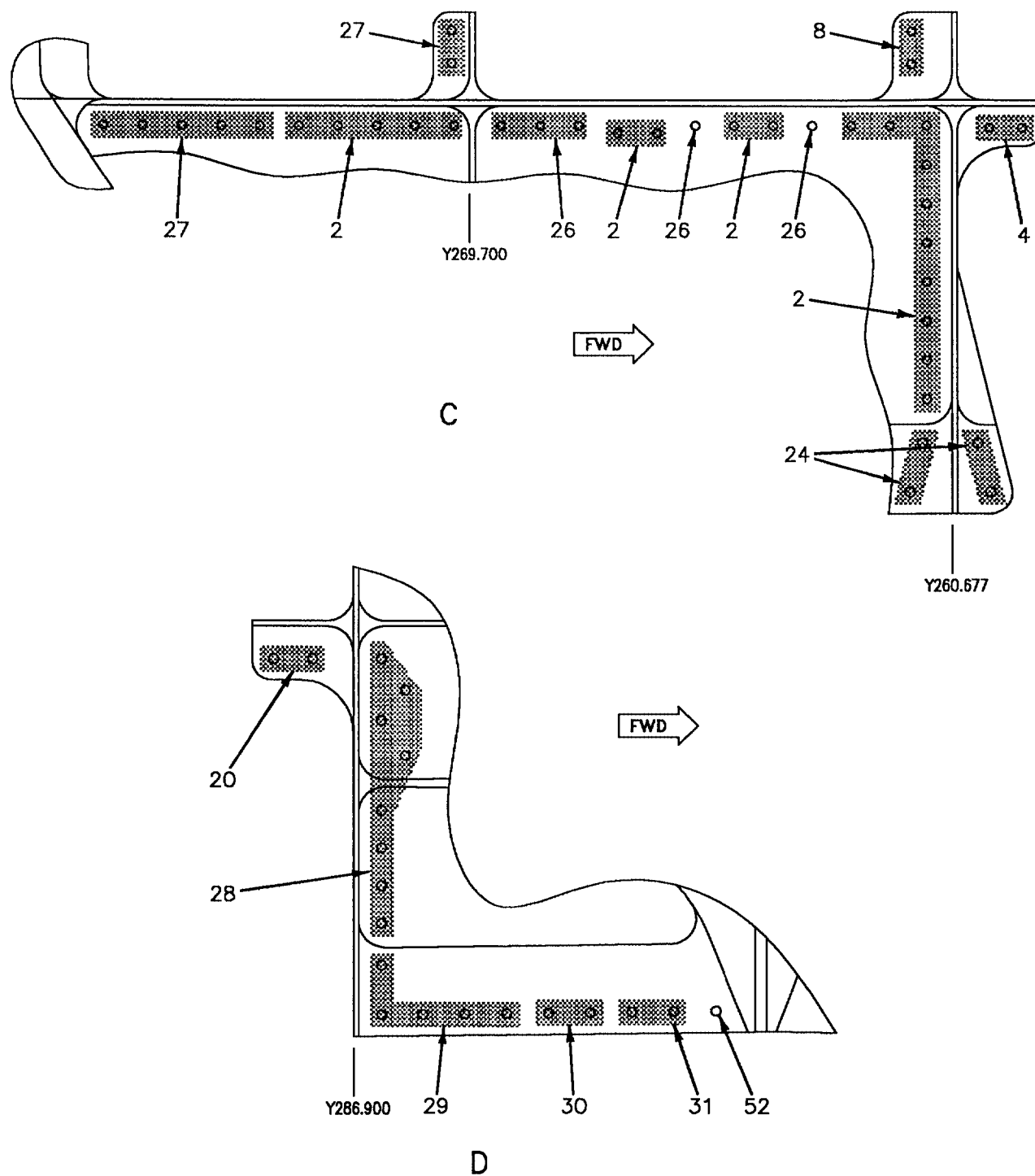


Figure 8. Trunnion Support Fitting, 74A314235, Fastener Index (Sheet 4)



































Idx No.	Eft		Nomenclature	Part Number
1	 	 	Pin Pin Collar	NAS2605V03 NAS2605V04 NAS1080AG05
2			Pin Collar	NAS2605V03 NAS1080AG05
3	 	 	Pin Pin Collar	NAS2605V04 NAS2605V05 NAS1080AG05
4			Pin Collar	NAS2605V04 NAS1080AG05
5			Pin Collar	NAS2605V05 NAS1080AG05
6	 	 	Pin Pin Collar	NAS2705V05 NAS2705V04 NAS1080AG05
7			Pin Collar	NAS2705V05 NAS1080AG05
8	 	 	Pin Pin Collar	NAS2605V04 NAS2605V05 NAS1080AG05
9		 	Bolt Platenut	NAS673V11 MS21060L3
10			Rivet	MS20470AD4
11			Pin Collar	VLB235-6-6 NAS1080-06
12			Pin Collar	VLB237-6-6 NAS1080-06
13			Pin Collar	VLB237-6-5 NAS1080-06
14	 	 	Pin Collar Pin Collar	NAS2608V05 NAS1080AG08 HLT312DL-10-5 SW1000-10M
15	 	 	Pin Collar Pin Collar	NAS2608V06 NAS1080AG08 HLT312DL-10-5 SW1000-10M

Figure 8. Trunnion Support Fitting, 74A314235, Fastener Index (Sheet 5)

Idx No.	Eft		Nomenclature	Part Number
16			Rivet	MS20470AD5
17		 	Bolt Platenut	NAS673V2 MS21060L3
18	 	 	Pin Collar Pin Collar	NAS2608V07 NAS1080AG08 HLT312DL-10-7 SW1000-10M
19			Pin Collar	NAS2606V06 NAS1080AG06
20			Pin Collar	NAS2606V05 NAS1080AG05
21			Pin Collar	NAS2606V04 NAS1080AG06
22			Pin Collar	NAS2610V06 NAS1080AG10
23			Bolt Washer Nut	NAS675V7 AN960D516 NAS1291C5M
24			Pin Collar	NAS2606V07 NAS1080AG06
25	 	 	Pin Pin Collar	NAS2605V05 NAS2605V06 AS1080AG05
26	 	 	Pin Pin Collar	NAS2605V02 NAS2605V03 NAS1080AG05
27	 	 	Pin Pin Collar	NAS2605V03 NAS2605V04 NAS1080AG06
28			Pin Collar	VLB237-6-4 NAS1080-06
29			Pin Collar	VLB237-6-7 NAS1080-06
30	 	 	Pin Pin Collar	NAS2706V06 AIC948V06-6 NAS1080AG06

Figure 8. Trunnion Support Fitting, 74A314235, Fastener Index (Sheet 6)














































Idx No.	Eft		Nomenclature	Part Number
31	 	 	Pin Collar Pin Collar	NAS2606V06 NAS1080-06 VLB237-6-6 NAS1080AG06
32	 	  	Bolt Platenut Platenut	NAS673V2 MS21060L3 MS21060L3
33	 	 	Pin Pin Collar	VLB235-6-8 VLB235-6-9 NAS1080-06
34	 	 	Pin Pin Collar	VLB235-6-8 NAS1080-06 HLT310DL-6-10 HL570-6MC
35	 	 	Pin Pin Collar	VLB235-6-8 VLB235-6-6 NAS1080-06
36	 	 	Pin Pin Collar	VLB235-6-8 VLB235-6-9 NAS1080-06
37	 	 	Pin Pin Collar	VLB235-6-8 NAS1080-06 HLT310DL-6-10 HL570-6MC
38			Pin Collar	NAS2605V06 NAS1080AG05
39			Pin Collar	NAS2605V02 NAS1080AG05
40	 	 	Pin Pin Collar	NAS2605V03 NAS2705V03 NAS1080AG05
41			Bolt Washer	NAS673V5 AN960D10L
42	 	 	Pin Pin Collar	NAS2605V04 NAS2605V03 NAS1080AG05
43	 	 	Pin Pin Collar	NAS2605V04 NAS2605V03 NAS1080AG05

Figure 8. Trunnion Support Fitting, 74A314235, Fastener Index (Sheet 7)








































Idx No.	Eft		Nomenclature	Part Number
44	 	 	Pin Pin Collar	NAS2605V04 NAS2605V03 NAS1080AG05
45			Rivet	MS20470AD4
46			Rivet	CSR903B-5-6
47	 	  	Rivet Bolt Platenut	MS20470AD4 NAS673V11 MS21060L3
48			Pin Collar	NAS2706V05 NAS1080AG06
49	 	 	Pin Pin Collar	NAS2606V05 NAS2606V06 NAS1080AG06
50	 	 	Pin Collar Pin Collar	NAS2606V04 NAS1080AG06 HLT310DL-6-4 HL570-6MC
51	 	 	Pin Collar Pin Collar	NAS2606V06 NAS1080AG06 HLT310DL-6-5 HL570-6MC
52	 	 	Pin Collar Pin Collar	NAS2606V06 NAS1080AG06 VLB237-6-7 NAS1080-06
53			Pin Collar	NAS2605V04 NAS1080AG05
LEGEND				
 F/A-18A, 161353 THRU 161528. F/A-18B, 151354 THRU 161360.				
 F/A-18A, 161702 AND UP. F/A-18B, 161704 AND UP.				
 F/A-18A, 161353 THRU 161761, 161935, 161944, 161949, 161954, 161957, 161961, 161964, 161968, 161971, 161973, 161976, 161979. F/A-18B, 161354 THRU 161924.				
 F/A-18A, 161925 THRU 161934, 161936 THRU 161942, 161945 THRU 161948, 161950 THRU 161953, 161955, 161956, 161958 THRU 161960, 161962, 161963, 161965 THRU 161967, 161969, 161970, 161972, 161974, 161975, 161977, 161978, 161980 AND UP. F/A-18B, 161932 AND UP.				
 F/A-18A, 161353 THRU 161359. F/A-18B, 161354 THRU 161357.				
 F/A-18A, 161361 AND UP. F/A-18B, 161360 AND UP.				
 F/A-18A, 162469, 162473, 162476, 162827 THRU 162909. F/A-18B, 161354 THRU 163115.				

Figure 8. Trunnion Support Fitting, 74A314235, Fastener Index (Sheet 8)

Idx No.	Eft		Nomenclature	Part Number
8			F/A-18A, 161353 THRU 162468, 162470 THRU 162472, 162474, 162475, 162477 THRU 162826, 163092 AND UP. F/A-18B, 161354 THRU 162427, 163123 AND UP.	
9			F/A-18A, 161353 THRU 162909. F/A-18B, 161354 THRU 162885.	
10			F/A-18A, 163092 AND UP. F/A-18B, 163104 AND UP.	
11			F/A-18A, 161353 THRU 161761, 161935, 161944, 161949, 161954, 161957, 161961, 161964 161968, 161971, 161973, 161976, 161979, 163146 AND UP. F/A-18B, 161354 THRU 161924, 163104 AND UP.	
12			F/A-18A, 161925 THRU 161934, 161936 THRU 161942, 161945 THRU 161948, 161950 THRU 161953 161955, 161956, 161958 THRU 161960, 161962, 161963, 161965 THRU 161967, 161969, 161970, 161972 161974, 161975, 161977, 161978, 161980 THRU 163145. F/A-18B, 161932 THRU 162885.	
13			F/A-18A, 161353 THRU 162452, 162454, 162456, 162457, 162459, 162461. F/A-18B, 161354 THRU 162427.	
14			F/A-18A, 162453, 162455, 162458, 162460, 162462 AND UP. F/A-18B, 162836 AND UP.	
15			F/A-18A, 161353 THRU 161987. F/A-18B, 161354 THRU 161947.	
16			F/A-18A, 162394 AND UP. F/A-18B, 162402 AND UP.	
17			F/A-18A, 162394 THRU 162452, 162454, 162456, 162457, 162459, 162461. F/A-18B, 162402 THRU 162427.	
18			F/A-18A, 161353 THRU 161987, 162453, 162455, 162458, 162460, 162462 AND UP. F/A-18B, 161354 THRU 161947, 162836 AND UP.	
19			Attach platenut using NAS1097AD3 rivets, length to be determined upon installation.	
20			Attach platenut using CSR904B-3-9 rivets.	
21			Hole diameter is 0.1635 +0.0025 -0.000.	
22			Hole diameter is 0.1850 +0.0030 -0.000.	
23			Hole diameter is 0.1950 +0.0007 -0.000.	
24			Hole diameter is 0.1280 +0.0005 -0.000.	
25			Hole diameter is 0.3120 +0.0020 -0.000.	
26			Hole diameter is 0.2495 +0.0025 -0.000.	
27			Hole diameter is 0.1610 +0.0005 -0.000.	
28			Hole diameter is 0.1895 +0.0025 -0.000.	
29			Hole diameter is 0.3120 +0.0025 -0.000.	
30			Hole diameter is 0.3120 +0.0007 -0.000.	

Figure 8. Trunnion Support Fitting, 74A314235, Fastener Index (Sheet 9)

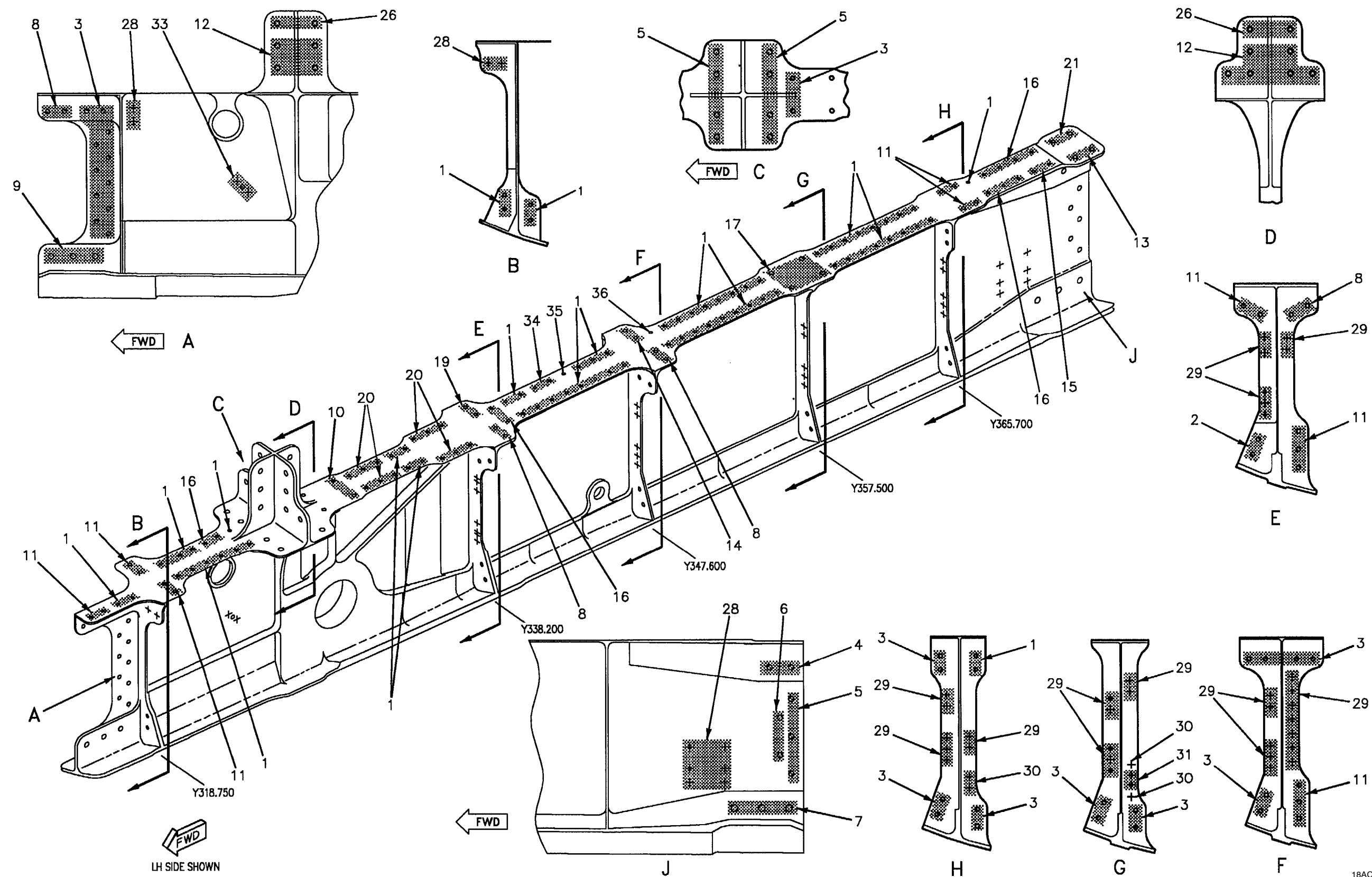


Figure 9.

Figure 9. Drag Brace Support Fitting, 74A314612, Fastener Index (Sheet 1)

Figure 9.

18AC-SRM-221-(142-1)03-CAT1

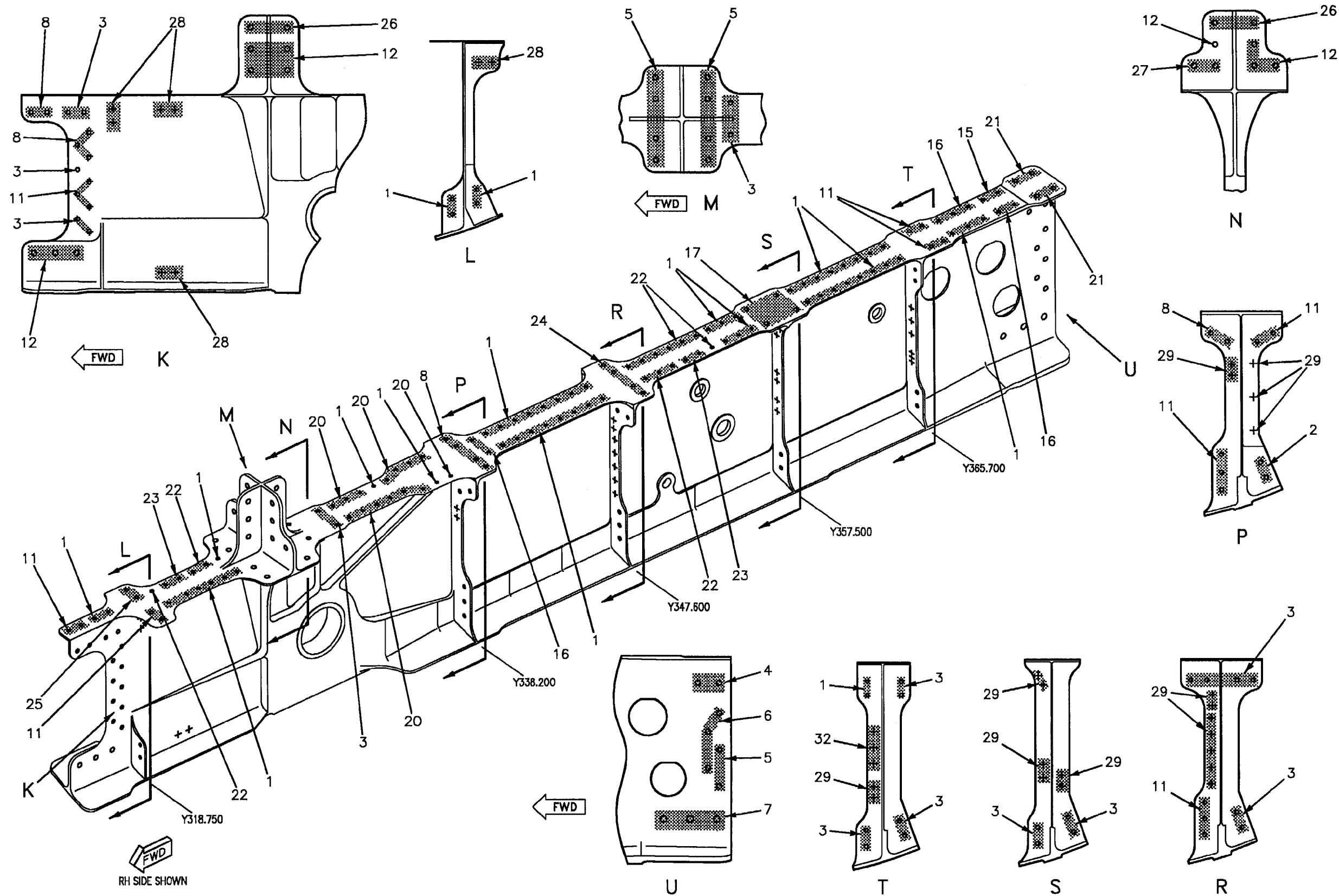


Figure 9.

Figure 9. Drag Brace Support Fitting, 74A314612, Fastener Index (Sheet 2)

Figure 9.























Idx No.	Eft		Nomenclature	Part Number
1			Pin Collar	NAS2605V03 NAS1080AG05
2			Pin Collar	NAS2606V07 NAS1080AG06
3			Pin Collar	NAS2606V03 NAS1080AG06
4			Pin Collar	HLT50YB-8-9 HL570-8MC
5			Pin Collar	VLB235-8-5 NAS1080-08
6			Pin Collar	VLB235-8-4 NAS1080-08
7			Pin Collar	VLB235-10-10 NAS1080P10
8			Pin Collar	NAS2606V05 NAS1080AG06
9			Pin Collar	NAS2608V06 NAS1080AG08
10			Pin Collar	NAS2606V02 NAS1080AG06
11			Pin Collar	NAS2606V04 NAS1080AG06
12			Pin Collar	VLB237-8-6 NAS1080-08
13	 	 	Pin Collar Pin Collar	VLB235-8-6 NAS1080-08 HLT50YB-8-4 HL570-8MC
14	 	 	Pin Collar Pin Collar	NAS2606V05 NAS1080-06 HLT312TB-6-8 HL570-6MC
15			Pin Collar	NAS2605V05 NAS1080AG05
16			Pin Collar	NAS2605V05 NAS1080AG05

Figure 9. Drag Brace Support Fitting, 74A314612, Fastener Index (Sheet 3)






















Idx No.	Eft		Nomenclature	Part Number
17			Pin Collar	NAS2608V05 NAS1080AG08
18			Pin Collar	NAS2605V07 NAS1080AG05
19			Pin Collar	HLT312TB-6-8 HL570-6MC
20			Pin Collar	NAS2605V02 NAS1080AG05
21			Pin Collar	HLT50YB-8-6 SW1000-8M
22			Pin Collar	NAS2705V03 NAS1080AG05
23			Pin Collar	NAS2705V04 NAS1080AG05
24			Pin Collar	NAS2706V05 NAS1080AG06
25			Pin Collar	NAS2706V04 NAS1080AG06
26			Pin Collar	VLB237-8-7 NAS1080-08
27			Pin Collar	VLB237-8-8 NAS1080-08
28			Rivet	MS20470AD5
29			Rivet	MS20470AD4
30			Rivet	NAS1398C4A3
31			Rivet	NAS1398C4A4
32			Rivet	MS20426AD3
33			Bolt Platenut	NAS673V11 MS21060L3
34	 	 	Pin Pin Collar	NAS2605V05 NAS2605V07 NAS1080AG05

Figure 9. Drag Brace Support Fitting, 74A314612, Fastener Index (Sheet 4)





















Idx No.	Eft		Nomenclature	Part Number
35	 	 	Pin Pin Collar	NAS2605V03 NAS2605V05 NAS1080AG05
36	 	 	Pin Pin Collar	NAS2605V03 NAS2605V07 NAS1080AG05
<p style="text-align: center;">LEGEND</p> <p> F/A-18A, 161353 THRU 161528. F/A-18B, 161354 THRU 161360.</p> <p> F/A-18A, 161702 AND UP. F/A-18B, 161704 AND UP.</p> <p> Attach platenut using NAS1097AD3 rivets, length to be determined upon installation.</p> <p> Hole diameter is 0.1635 +0.0025 -0.000</p> <p> Hole diameter is 0.1895 +0.0025 -0.000</p> <p> Hole diameter is 0.2450 +0.0030 -0.000.</p> <p> Hole diameter is 0.2450 +0.0003 -0.000.</p> <p> Hole diameter is 0.2495 +0.0025 -0.000.</p> <p> Hole diameter is 0.1610 +0.0005 -0.000</p> <p> Hole diameter is 0.1285 +0.0035 -0.000.</p> <p> Hole diameter is 0.1280 +0.0006 -0.000.</p> <p> Hole diameter is 0.1950 +0.0007 -0.000.</p>				

Figure 9. Drag Brace Support Fitting, 74A314612, Fastener Index (Sheet 5)

ORGANIZATIONAL MAINTENANCE

STRUCTURE REPAIR

FORWARD FUSELAGE KEELS

Reference Material

Aircraft Weapons Systems Cleaning and Corrosion Control	NAVAIR 01-1A-509
Structure Repair, General Information	A1-F18AC-SRM-200
Introduction	WP002 00
Structure Repair, Typical Repair	A1-F18AC-SRM-250
Aluminum Patch Fabrication	WP006 01
Aluminum, Graphite Epoxy, or Titanium Patch Installation and Removal	WP007 00
Aluminum Sheet, Free of Structure and Land Areas	WP031 00
Aluminum and Titanium Sheet, Formed Structure	WP033 00
Aluminum Sheet Edge Repair	WP034 00
Aluminum Sheet Repairs, Across Structure and Lands	WP036 00
Blending	WP038 00
Aircraft Corrosion Control	A1-F18AC-SRM-500
Forward Fuselage Main Structure Assembly Finish System and Markings	WP024 00

Alphabetical Index

Subject	Page No.
Damage Evaluation	1
Negligible Damage	2
Repairable Damage	2
Repairs	2
Permanent Repairs	2
Cracks	2
Dents	4
Edge	3
Holes	3
Scratches, Nicks, Gouges, or Corrosion	2

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

None

1. **DAMAGE EVALUATION.** Figures 1, 2, and 3.

2. Damage is classified as negligible and repairable. Locating and determining size of damage by visual method is organizational maintenance. The types of materials used are shown on figures 1 and 2. Repair zones are shown on figure 3. Allowable damage limits within repair zones are listed in tables 1 and 2. Damage not listed or exceeding the following limits require a depot engineering disposition.

3. **NEGLIGIBLE DAMAGE.** Negligible damage is damage that may be allowed to exist as is. However, preventive maintenance, for temporary corrosion arrestment, should be done to scratches (NAVAIR 01-1A-509). The types and limits of damage are listed below and in table 1. The figure and index numbers in table 1 coincide with the figure and index numbers in the material indexes, figures 1 and 2.

a. Scratches are not allowed within one diameter from the edge of any hole.

b. Smooth dents only, effective diameter at least 20 times the depth.

4. **REPAIRABLE DAMAGE.** The types and limits of damage are listed below and in table 2. The figure and index numbers in table 2 coincide with figure and index numbers in the material indexes, figures 1 and 2.

NOTE

The limits in table 2 apply after blending the damage.

a. Scratches.

(1) Any scratches within one diameter of any hole or spot weld must be blended out. Minimum blend out is one diameter from edge of any hole.

(2) Scratches to be blended out with diameter, or width, at surface at least 20 times the depth.

b. Nicks, gouges, and corrosion to be blended out with diameter, or width, at surface at least 20 times the depth.

c. Cracks. All cracks must be repaired.

d. Holes.

(1) Damage in areas free of structure and lands must have edge of cleanup hole at least eight repair fastener diameters from any land, internal structure or existing row of fasteners.

(2) Damage to lands, overstructure, only one repair per land.

e. Dents exceeding the limits in table 1 must be repaired.

5. REPAIRS.

6. Types of repairs are temporary, one-time flight, permanent, critical area, alternate and typical. Repair type definition are in structure repair terms (A1-F18AC-SRM-200, WP002 00).

7. PERMANENT REPAIRS.

8. **Scratches, Nicks, Gouges, or Corrosion.** Blend scratches, nicks gouges, or corrosion (A1-F18AC-SRM-250, WP038 00). If after blending, the damage limits of table 2 are exceeded, repair aluminum sheet as below. Refinish blended areas (A1-F18AC-SRM-500, WP024 00).

a. Scratches - make crack or edge repairs.

b. Nicks, gouges, or corrosion - make hole or edge repair.

9. Cracks.

a. In repair zones A1, A3 and B1, repair cracks free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00).

(1) Stop drill ends of cracks in repair zone A1. Rout out crack in repair zone A3. Completely cut out crack in smallest diameter circle possible in repair zone B1.

(2) Install lap patch in repair zones A1 and A3.

(3) Install a type two flush or lap patch in repair zone B1.

(4) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

b. In repair zone B3, repair cracks free of structure or land areas in aluminum sheet, 0.050 inch thick or less.

(1) Completely cut out damage in smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

c. In repair zones A1, A3 and B1, repair cracks across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

(2) Make repairs as below:

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

d. In repair zones A1, A3 and B1, repair cracks to aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) Install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

10. Holes.

a. In repair zones A1, A3 and B1, repair holes free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00).

(1) Cut out damage.

(2) Install a type one flush or lap patch in repair zones A1 and A3. Install a type two flush or lap patch in repair zone B1.

(3) Refinish repair area (A1-F18AC-SRM-500, WP024 00).

b. In repair zone B3, repair holes free of structure or land areas in aluminum sheet, 0.050 inch thick or less.

(1) Completely cut out damage in smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

c. In repair zones A1, A3 and B1, repair holes across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

(2) Make repairs as below:

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land or Land and Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

d. In repair zones A1, A3 and B1, repair holes to aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) Install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

11. **Edge.** In repair zones A1, A3 and B1, repair edge damage in aluminum sheet (A1-F18AC-SRM-250, WP034 00).

a. Cut out damage.

b. Select and install repair patch as below:

(1) Corner Damage to Lands.

(2) Corner Damage to Lands and Bays.

(3) Edge Damage to Lands.

(4) Edge Damage to Lands and Bays.

(5) Full Width Damage to End.

c. Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

12. Dents.

a. In repair zones A1, A3 and B1, repair dents free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00).

(1) Cut out damage.

(2) Install a type one flush or lap patch in repair zones A1 and A3. Install a type two flush or lap patch in repair zone B1.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

b. In repair zone B3, repair dents free of structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP031 00).

(1) Completely cut out damage in smallest diameter circle possible.

(2) Fabricate patch (A1-F18AC-SRM-250, WP006 01).

(3) Install patch using FM300 Adhesive (A1-F18AC-SRM-250, WP007 00).

(4) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

c. In repair zones A1, A3 and B1, repair dents across structure or land areas in aluminum sheet (A1-F18AC-SRM-250, WP036 00).

(1) Cut out damage.

(2) Make repairs as below:

(a) Damage to Bay Requiring Repair Across Land; install flush or lap patch.

(b) Damage to Bay Requiring Repair Across Land and Edge of Part; install flush or lap patch.

(c) Damage to Land to Land or Bay; install flush or lap patch.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

d. In repair zones A1, A3 and B1, repair dents to aluminum formed structure (A1-F18AC-SRM-250, WP033 00).

(1) Cut out damage.

(2) Install repair one through six. Select the repair that can be adapted to the damaged part.

(3) Refinish repaired area (A1-F18AC-SRM-500, WP024 00).

Table 1. Negligible Damage Limits



Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 1 (1)	Tee Zone B3	0.090	0.0006	0.0006	100%		N/A
Fig 1 (2)	Web Zone B3	0.072	0.0006	0.0006	100%	0.036	N/A
Fig 1 (3)	Support Zone A3	0.080	0.002	0.002	100%	0.040	N/A
Fig 1 (4)	Splice Zone B3	0.050	0.0006	0.0006	100%		N/A

Table 1. Negligible Damage Limits (Continued)
































Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 1 (5)	Angle Zone A3	0.090	0.002	0.002	100%		N/A
Fig 1 (6)	Angle Zone A3	0.090	0.002	0.002	100%		N/A
Fig 1 (7)	Angle Zone A3	0.090	0.002	0.002	100%		N/A
Fig 1 (8)	Angle Zone B1	0.071	0.014	0.0006	100%		N/A
Fig 1 (9)	Bracket Zone A1	0.050	0.002	0.002	100%		N/A
Fig 1 (10)	Bracket Zone A1	0.050	0.002	0.002	100%		N/A
Fig 1 (11)	Bracket Zone A1	0.050	0.002	0.002	100%		N/A
Fig 1 (12)	Former Zone A1	0.050	0.002	0.002	100%		N/A
Fig 1 (13)	Support Zone B2	0.060 to 0.140	0.0006	0.0006	100%		N/A
	Zone C2	0.060 to 0.460	0.0006	0.0006	100%	 0.030	N/A
	Zone C3	1.000	0.0006	0.0006	100%		N/A
	Zone D3	0.060 to 1.000	0.0006	0.0006	100%		N/A
Fig 2 (1)	Support Zone B3	0.122	0.0006	0.0006	100%	0.061	N/A
		0.080 to 0.140	0.0006	0.0006	100%		N/A
Fig 2 (2)	Support Zone A1	0.040	0.002	0.002	100%	0.020	N/A
Fig 2 (3)	Support Zone B1	0.050	0.005	0.0006	100%		N/A
Fig 2 (4)	Support Zone B1	0.050	0.005	0.0006	100%		N/A
Fig 2 (5)	Support Zone B1	0.050	0.005	0.0006	100%		N/A

Table 1. Negligible Damage Limits (Continued)

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Dents Depth	Rivet Tilt
				Depth	Area		
Fig 2 (6)	Bracket Zone B3	0.040	0.004	0.0006	100%		N/A
Fig 2 (7)	Longeron Zone B3	0.090	0.0006	0.0006	100%		N/A
Fig 2 (8)	Plate Zone B3	0.071	0.0006	0.0006	100%		N/A
		0.040	0.0006	0.0006	100%	0.020	N/A
Fig 2 (9)	Channel Zone A3	0.063	0.002	0.002	100%		N/A
Fig 2 (10)	Angle Zone A3	0.063	0.002	0.002	100%		N/A
Fig 2 (11)	Support Zone C3	0.080	0.0006	0.0006	100%		N/A
Fig 2 (12)	Angle Zone A3	0.080	0.002	0.002	100%		N/A
Fig 2 (13)	Channel Zone A3	0.080	0.002	0.002	100%		N/A
Fig 2 (14)	Angle Zone A3	0.063	0.002	0.002	100%		N/A
Fig 2 (15)	Longeron Zone B3	0.090	0.0006	0.0006	100%		N/A
Fig 2 (16)	Angle Zone A3	0.063	0.002	0.002	100%		N/A
Fig 2 (17)	Angle Zone A3	0.063	0.002	0.002	10%		N/A
Fig 2 (18)	Angle Zone A1	0.050	0.002	0.002	100%		N/A
Fig 2 (19)	Channel Zone A3	0.080	0.002	0.002	100%		N/A
Fig 2 (20)	Angle Zone A3	0.063	0.002	0.002	100%		N/A

NOTES

 Except in forward and aft splice areas, where no dents are allowed.









 None allowed.

Table 2. Repairable Damage Limits After Blending

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Corrosion	
				Depth	Area	Depth	Area
Fig 1 (1)	Tee Zone B3	0.090	0.018	0.018	10%	0.018	10%
Fig 1 (2)	Web Zone B3	0.072	0.014	0.014	10%	0.0144	10%
Fig 1 (3)	Support Zone A3	0.080	0.016	0.016	50%	0.016	50%
Fig 1 (4)	Splice Zone B3	0.050	0.010	0.010	10%	0.010	10%
Fig 1 (5)	Angle Zone A3	0.090	0.018	0.018	10%	0.018	10%
Fig 1 (6)	Angle Zone A3	0.090	0.018	0.018	10%	0.018	10%
Fig 1 (7)	Angle Zone A3	0.090	0.018	0.018	10%	0.018	10%
Fig 1 (8)	Angle Zone B1	0.071	0.014	0.014	10%	0.014	10%
Fig 1 (9)	Bracket Zone A1	0.050	0.010	0.010	10%	0.010	10%
Fig 1 (10)	Bracket Zone A1	0.050	0.010	0.010	10%	0.010	10%
Fig 1 (11)	Bracket Zone A1	0.050	0.010	0.010	10%	0.010	10%
Fig 1 (12)	Former Zone A1	0.050	0.010	0.010	10%	0.010	10%
Fig 1 (13)	Support Zone B2	0.060 to 0.140	0.012	0.012	10%	0.012	10%
	Zone C2	0.060 to 0.100	0.012	0.012	10%	0.012	10%
		0.112 to 0.375	0.022	0.022	10%	0.022	10%
		0.280 to 0.460	0.056	0.056	10%	0.056	10%
	Zone C3 Zone D3	1.000 0.060 to 1.000	0.050 1	0.050 1	10% 1	0.050 1	10% 1

Table 2. Repairable Damage Limits After Blending (Continued)

Fig No Idx No	Nomen/ Repair Zone	Thickness	Scratch Depth	Nicks Gouges		Corrosion	
				Depth	Area	Depth	Area
Fig 2 (1) 	Support Zone B3	0.122 0.080 to 0.140	0.024 0.016	0.024 0.016	10% 10%	0.024 0.016	10% 10%
Fig 2 (2)	Support Zone A1	0.040	0.008	0.008	50%	0.008	50%
Fig 2 (3)	Support Zone B1	0.050	0.010	0.010	20%	0.010	20%
Fig 2 (4)	Support Zone B1	0.050	0.010	0.010	20%	0.010	20%
Fig 2 (5)	Support Zone B1	0.050	0.010	0.010	20%	0.010	20%
Fig 2 (6)	Bracket Zone B3	0.040	0.008	0.008	20%	0.008	20%
Fig 2 (7)	Longeron Zone B3	0.090	0.018	0.018	10%	0.018	10%
Fig 2 (8) 	Plate Zone B3	0.071 0.040	0.014 0.008	0.014 0.008	10% 10%	0.014 0.008	10% 10%
Fig 2 (9)	Channel Zone A3	0.063	0.012	0.012	20%	0.012	20%
Fig 2 (10)	Angle Zone A3	0.063	0.012	0.012	20%	0.012	20%
Fig 2 (11)	Support Zone C3	0.080	0.016	0.016	10%	0.016	10%
Fig 2 (12)	Angle Zone A3	0.080					
Fig 2 (13)	Channel Zone A3	0.080	0.016	0.016	20%	0.016	20%
Fig 2 (14)	Angle Zone A3	0.063	0.012	0.012	20%	0.016	20%
Fig 2 (15)	Longeron Zone B3	0.090	0.018	0.018	10%	0.018	10%
Fig 2 (16)	Angle Zone A3	0.063	0.012	0.012	20%	0.012	20%

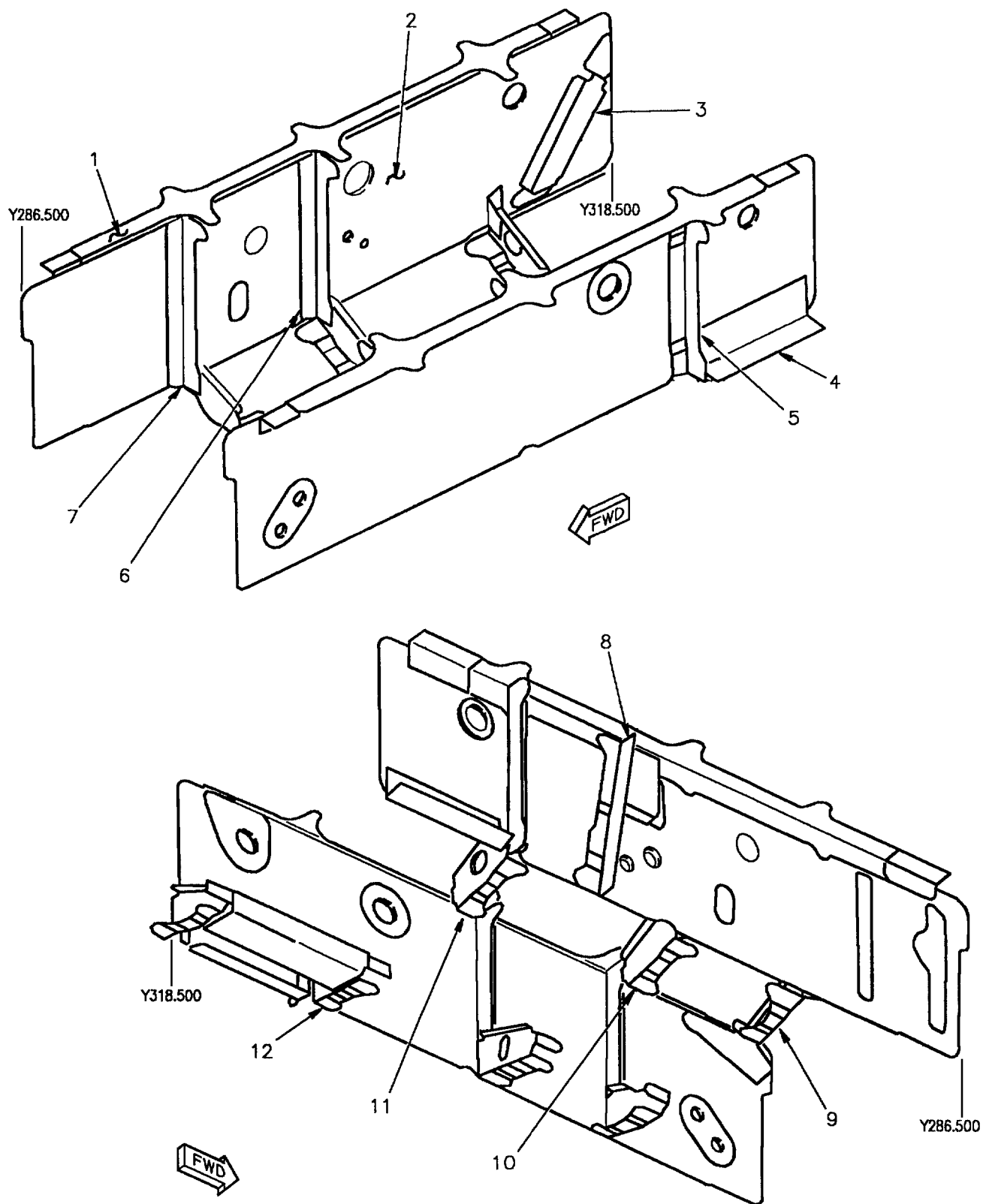


Figure 1. Lower Keel Material Index (Sheet 1)

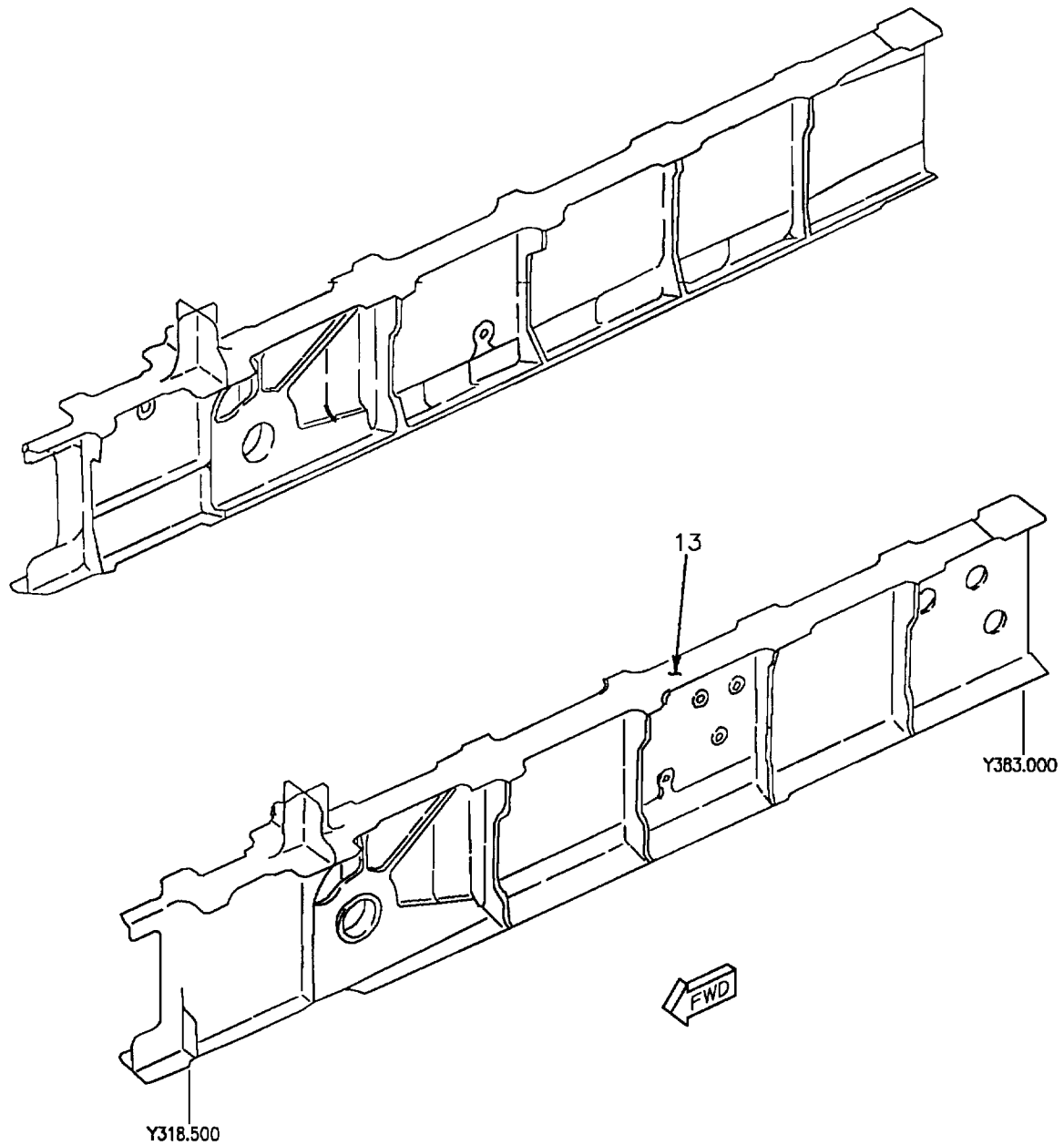


Figure 1. Lower Keel Material Index (Sheet 2)
















Idx No.	Eft	Nomenclature and Part No.	Description	Material
1		Tee 74A314275-2005, -2110	1MA160D06-10431 Extr.	7075-T76511 Al Aly
2 R L		Web 74A314275-2123 74A314275-2141	0.190 Sheet 0.071 Sheet	7075-T76 Alclad 7075-T6 Alclad
3		Support 74A314275-2107	0.080 Sheet	7075-T6 Alclad
4		Splice 74A314275-2007, -2008	0.050 Sheet	6A1-4V Ti Anl
5		Angle 74A314275-2019, -2020	0.090 Sheet	7075-T76 Alclad
6	 	Angle 74A314275-2122, -2121 74A314275-2122, -2159	0.090 Sheet	7075-T76 Alclad
7		Angle 74A314275-2016, -2101	0.090 Sheet	7075-T76 Alclad
8		Angle 74A314275-2129	0.071 Sheet	7075-T6 Alclad
9		Bracket 74A314275-2115, -2137	0.050 Sheet	7075-T6 Alclad
10	  	Bracket 74A314275-2119, -2117 74A314275-2119, -2149 74A314275-2119, -2157	0.050 Sheet	7075-T6 Alclad
11		Bracket 74A314275-2113, -2063	0.050 Sheet	7075-T6 Alclad
12		Former 74A314425-2005, -2006	0.050 Sheet	7075-T6 Alclad
13 L R R	  	Support 74A314612-2015 74A314612-2020 74A314612-2022	Machining	6A1-4V Ti Anl
<p style="text-align: center;">LEGEND</p> <p> 161353 AND UP.  161353 THRU 161359.  161360 AND UP.  161353 THRU 161987.  162394 THRU 162881.  161353 THRU 162881.  162882 AND UP.</p>				

Figure 1. Lower Keel Material Index (Sheet 3)

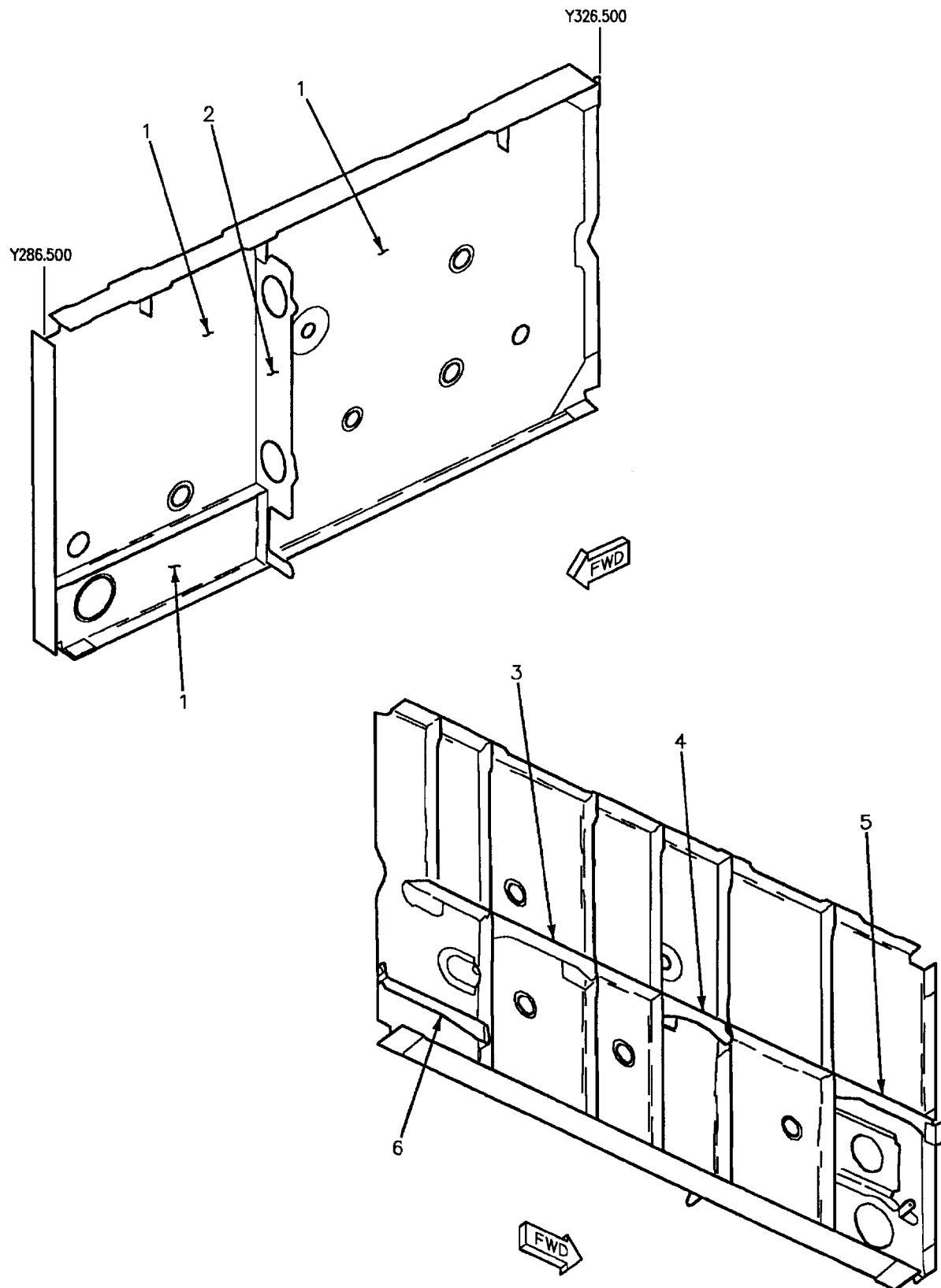


Figure 2. Upper Keel Material Index (Sheet 1)

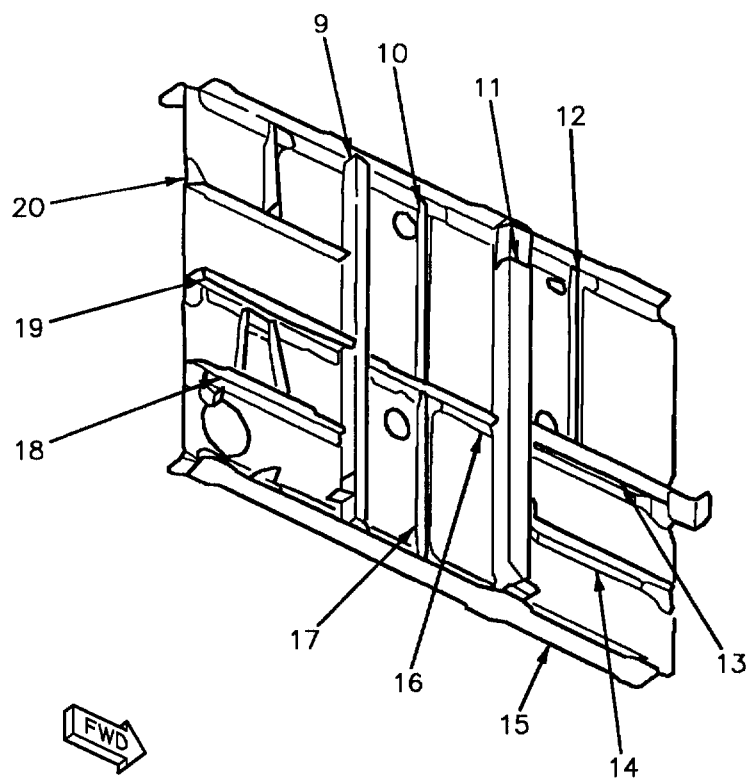
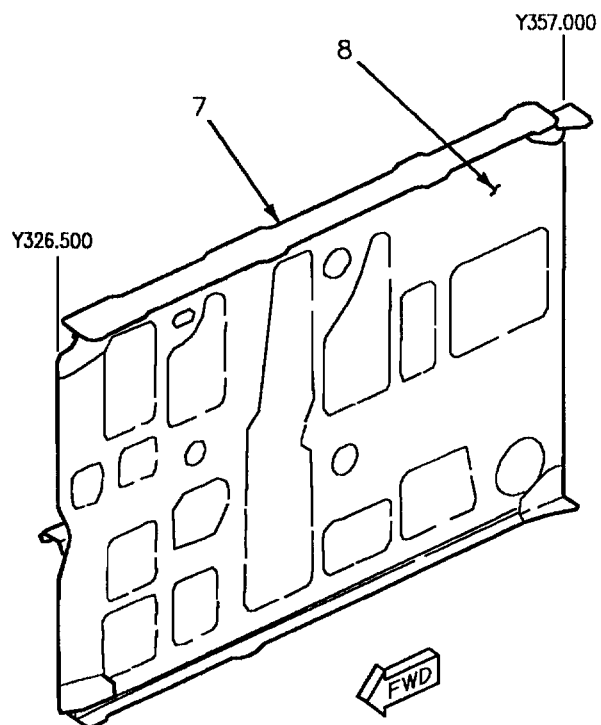


Figure 2. Upper Keel Material Index (Sheet 2)

Idx No.	Eft	Nomenclature and Part No.	Description	Material
1	<div>2</div> <div>3</div> <div>4</div> <div>19</div> <div>5</div> <div>6</div> <div>12</div> <div>20</div>	Support 74A314265-2015 74A314265-9023 74A314265-2025 74A314265-2037 74A314265-2017 74A314265-9025 74A314265-2027 74A314265-2041	<div>1</div> 2.25 Plate	7075-T7351 Al Aly
2	<div>7</div> <div>8</div>	Support 74A314264-2007 74A314264-2009	0.040 Sheet	7075-T6 Alclad
3		Support 74A314284-2011	0.050 Sheet	7075-T6 Alclad
4		Support 74A314284-2013	0.050 Sheet	7075-T6 Alclad
5		Support 74A314284-2001	0.050 Sheet	7075-T6 Alclad
6	<div>18</div> <div>11</div> <div>22</div>	Bracket 74A314284-2027 74A314284-2019 74A314284-2037	0.040 Sheet	7075-T6 Alclad
7	<div>9</div> <div>13</div> <div>10</div>	Longeron 74A314384-2003 74A314384-2007 74A314384-2005	1MA160D06-10395 Extr	7075-T76511 Al Aly
8	<div>9</div> <div>13</div> <div>14</div> <div>15</div>	Plate 74A314292-2115 74A314292-2135 74A314292-2117 74A314292-2137	0.071 Sheet 0.125 Sheet 0.071 Sheet 0.125 Sheet	7075-T6 Alclad 7075-T76 Alclad 7075-T6 Alclad 7075-T76 Alclad
9	<div>16</div> <div>17</div>	Channel 74A314292-2055 74A314292-2145	0.063 Sheet	7075-T6 Alclad
10		Angle 74A314292-2083	0.063 Sheet	7075-T6 Alclad
11		Support 74A314289-2001	2.50 Plate	7075-T73511 Al Aly
12		Angle 74A314292-2085	0.063 Sheet	7075-T6 Alclad

Figure 2. Upper Keel Material Index (Sheet 3)






























Idx No.	Eft	Nomenclature and Part No.	Description	Material
13	  	Channel 74A314292-2049 74A314292-2129 74A314292-2139	0.090 Sheet	7075-T6 Alclad
14		Angle 74A314292-2051	0.063 Sheet	7075-T6 Alclad
15		Longeron 74A314299-2005	1MA160D05-10378 Extr	7075-T73511 Al Aly
16	 	Angle 74A314292-2123 74A314292-2141	0.063 Sheet	7075-T6 Alclad
17	 	Angle 74A314292-2047 74A314292-2143	0.063 Sheet	7075-T6 Alclad
18		Angle 74A314292-2009	0.063 Sheet	7075-T6 Alclad
19		Channel 74A314292-2121	0.080 Sheet	7075-T6 Alclad
20		Angle 74A314292-2001	0.063 Sheet	7075-T6 Alclad
LEGEND				
	Machined from stock size.			
	F/A-18A 161353 THRU 161528.			
	F/A-18A 161702 THRU 161979.			
	F/A-18A 161980 THRU 162909.			
	F/A-18B 161354 THRU 161360.			
	F/A-18B 161704 THRU 161733.			
	161353 THRU 161715.			
	161716 AND UP.			
	F/A-18A 161353 THRU 161987.			
	F/A-18B.			
	161702 THRU 162896.			
	F/A-18B 161740 THRU 162885.			
	F/A-18A 162394 AND UP.			
	F/A-18B 161354 THRU 161947.			
	F/A-18B 162402 AND UP.			
	161353 THRU 161987.			
	162394 AND UP.			
	161353 THRU 161528.			
	F/A-18A 163092 AND UP.			
	F/A-18B 163104 AND UP.			
	161702 THRU 161987.			
	162897 AND UP.			

Figure 2. Upper Keel Material Index (Sheet 4)

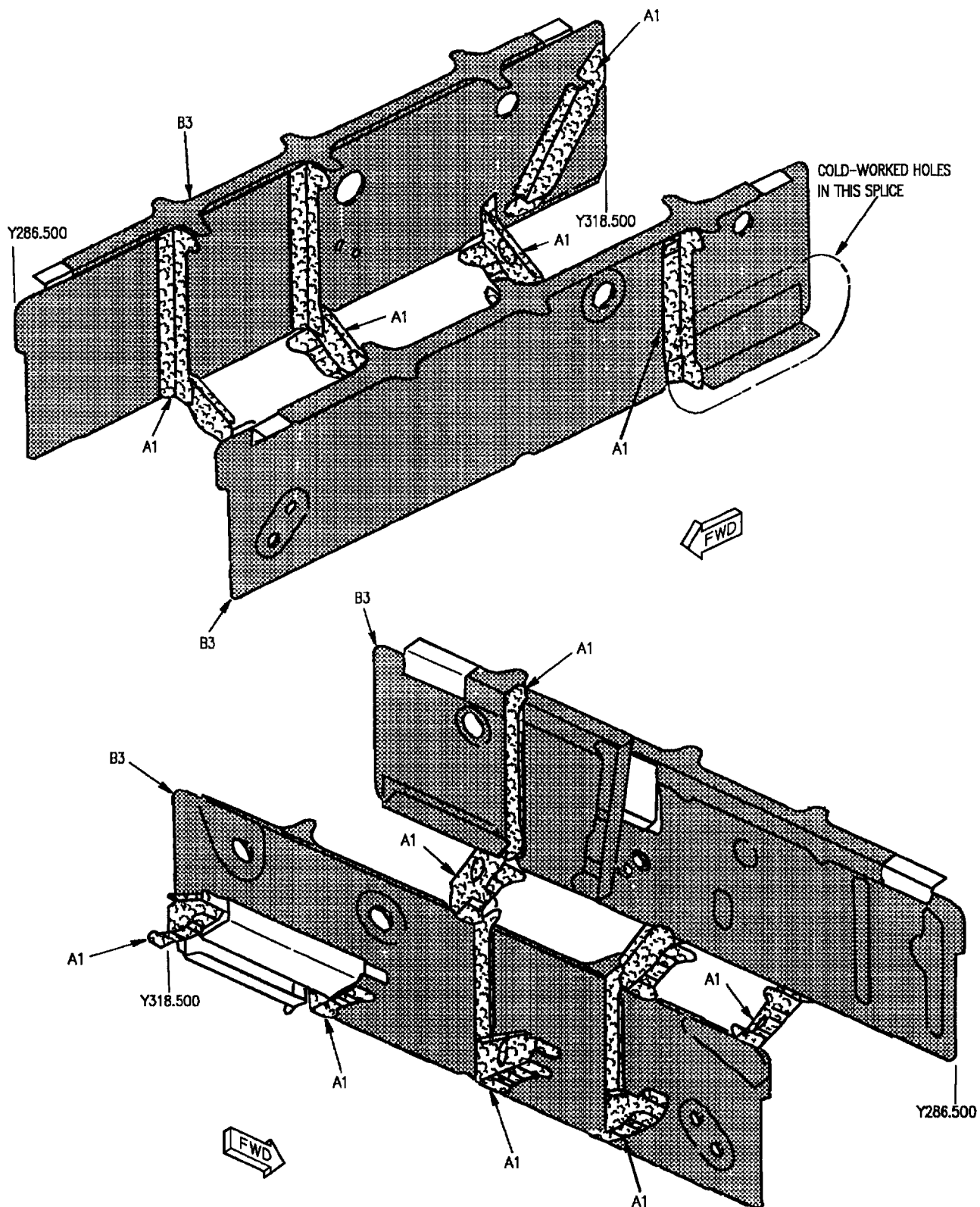


Figure 3. Repair Zones (Sheet 1)

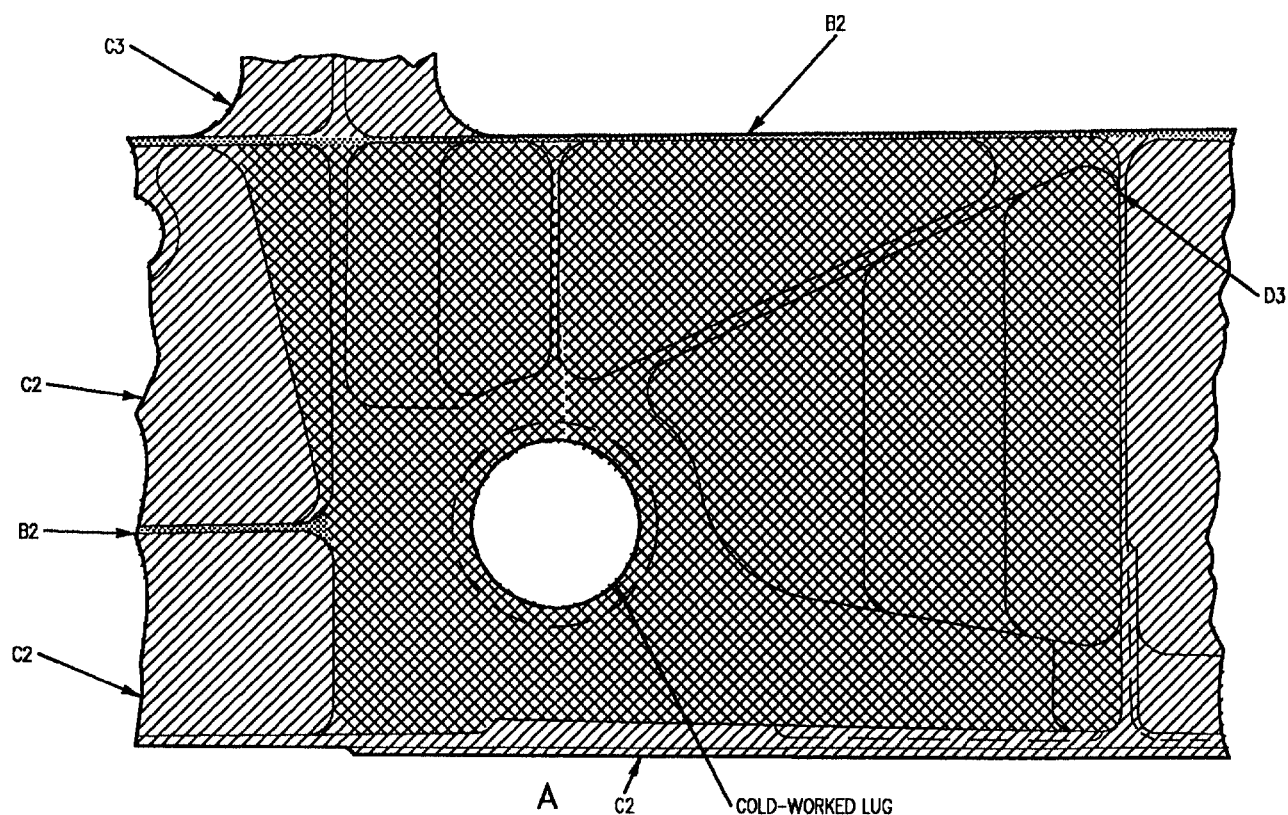
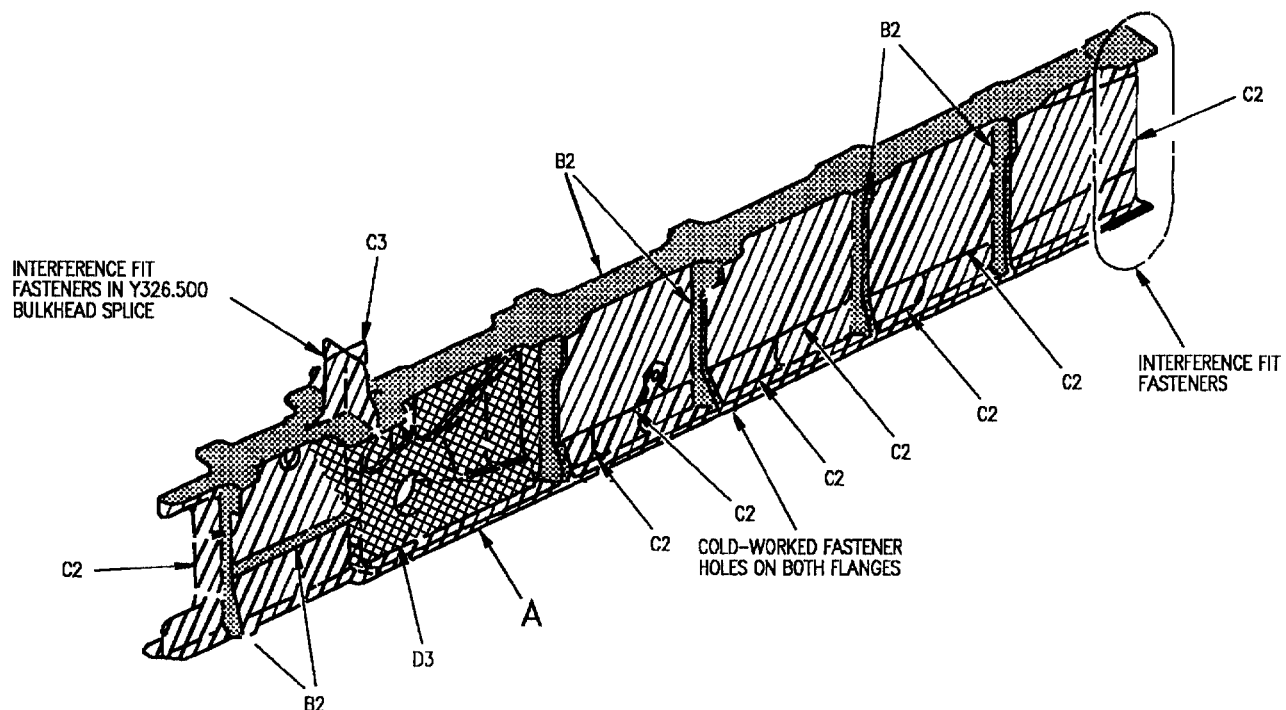


Figure 3. Repair Zones (Sheet 2)

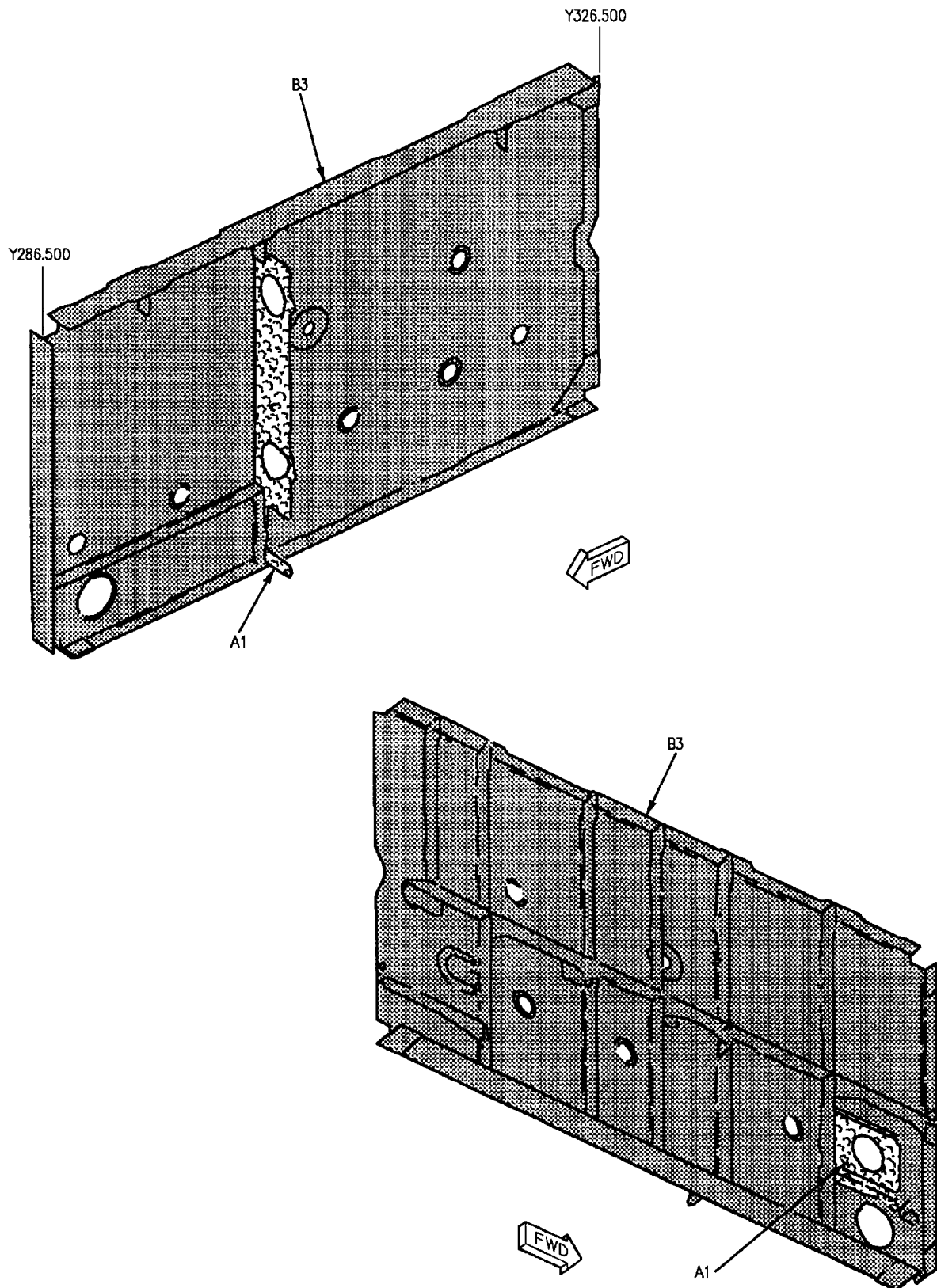


Figure 3. Repair Zones (Sheet 3)

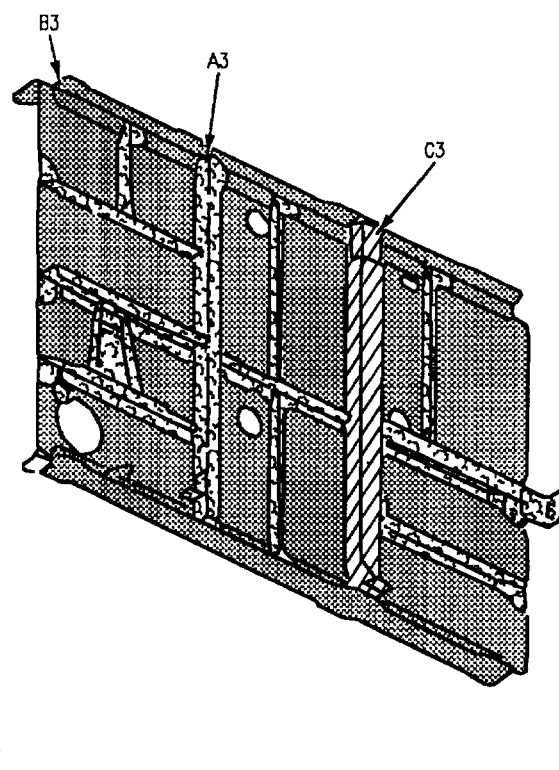
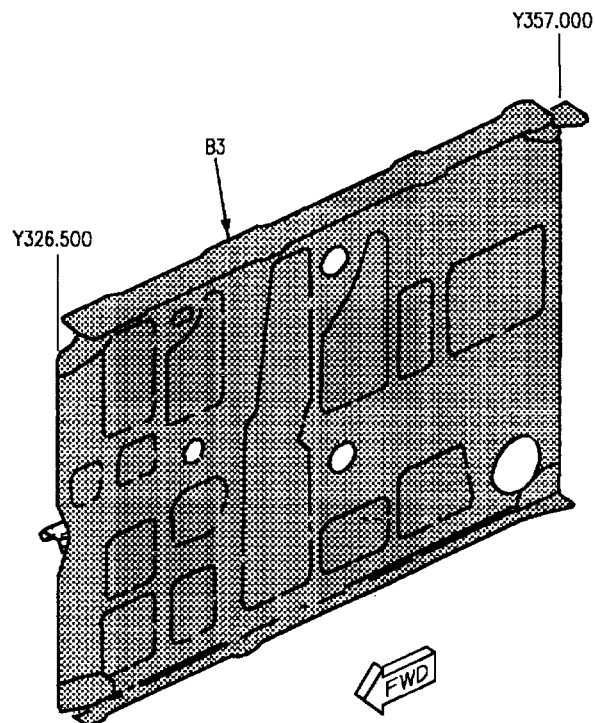


Figure 3. Repair Zones (Sheet 4)